

Protein Kinase Sequence Motifs

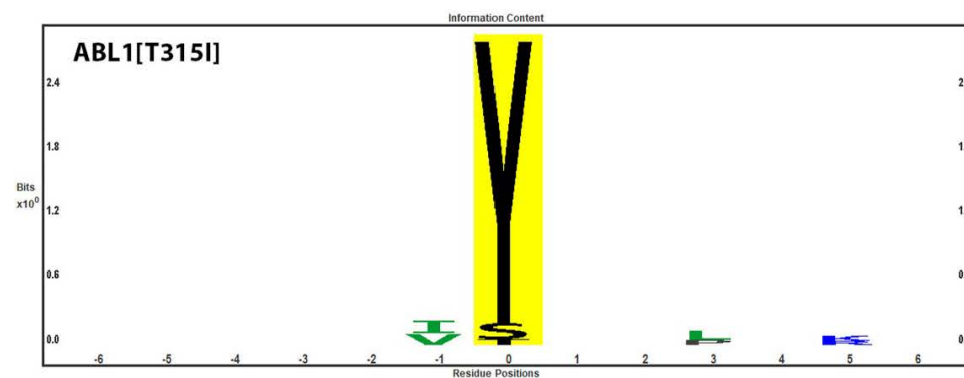
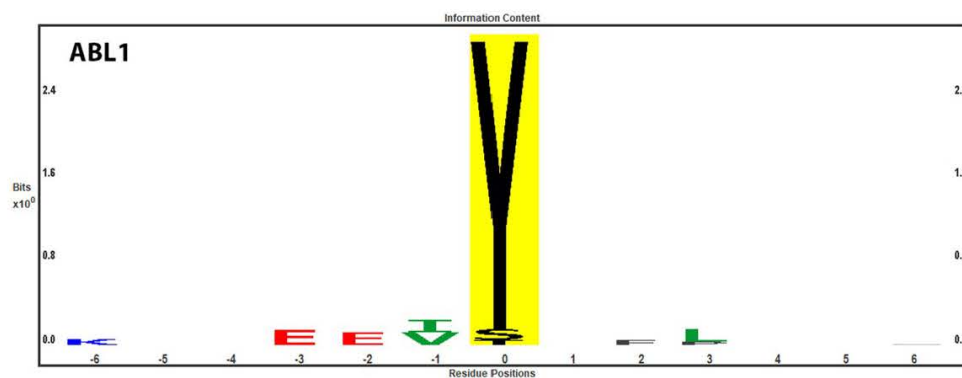
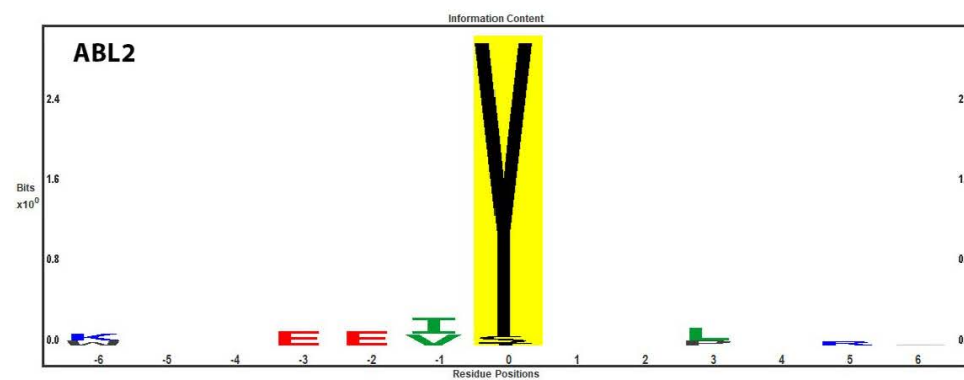
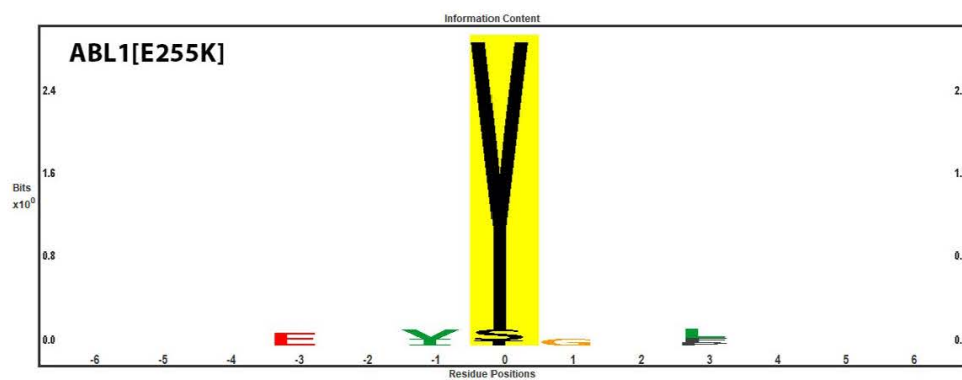
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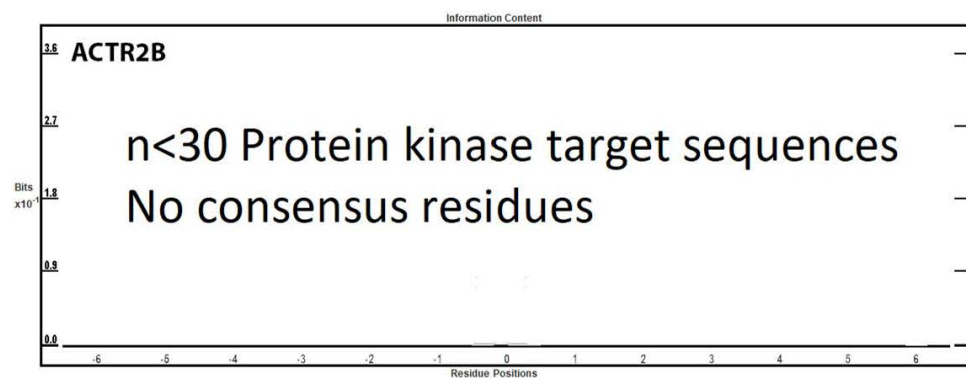
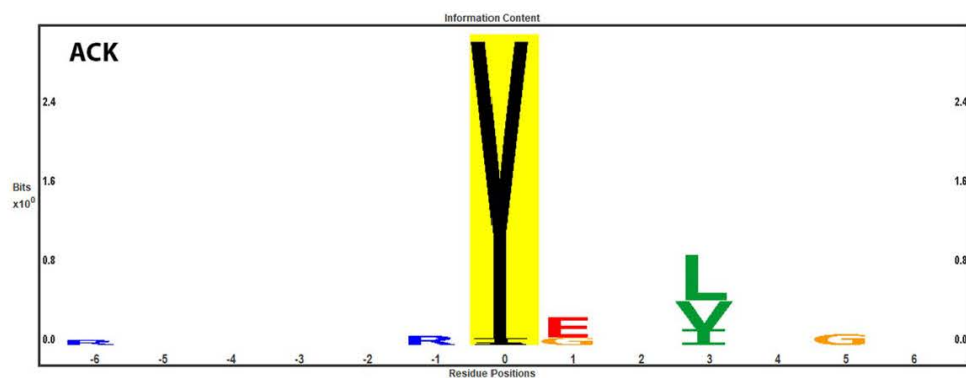
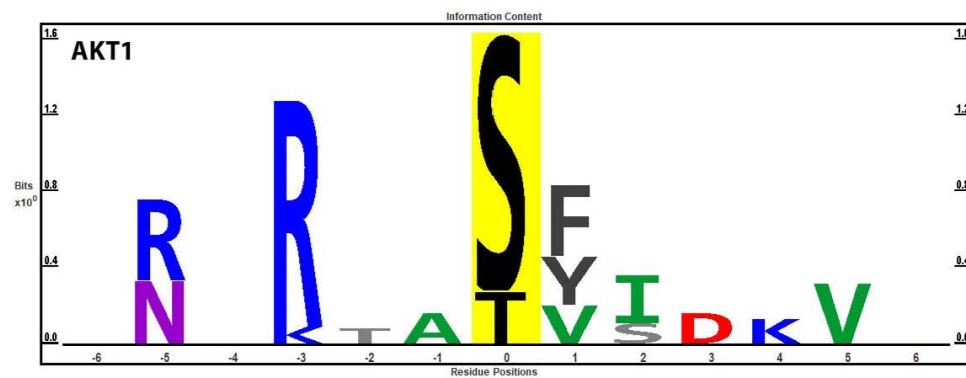
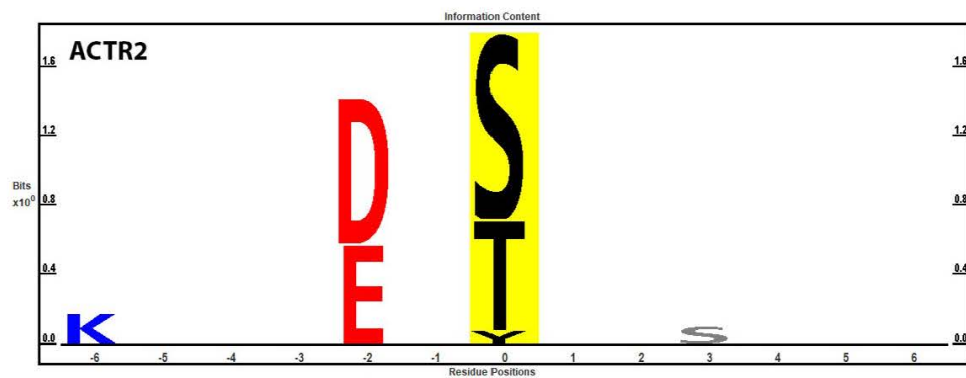
Kinase data curated from Sugiyama et al. (PMID: 31324866). Sequence motifs for each protein kinase showing amino acid preferences flanking the post-translational modified site were identified by PTMLogo. All logos were generated from a minimum of 30 amino acid sequences, using Chi-squared filtering $\alpha = 0.0001$. Exact number of reference sequences used for each kinase can be found at the link above. PTMLogo published by Saethang et al. 2019, PMID: 31318409.

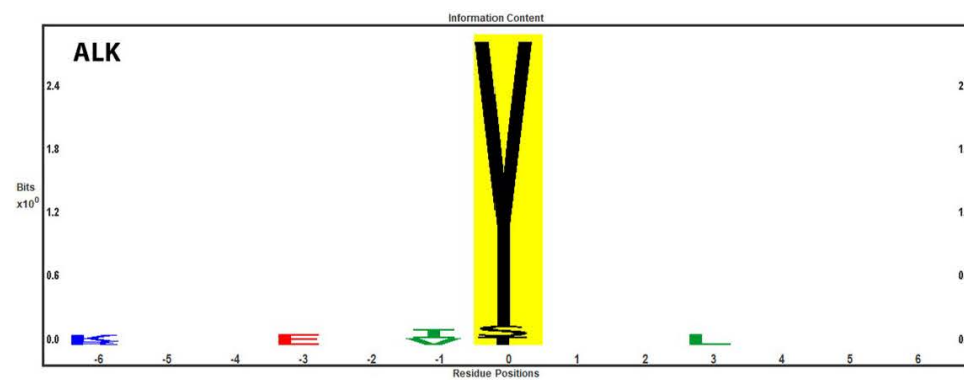
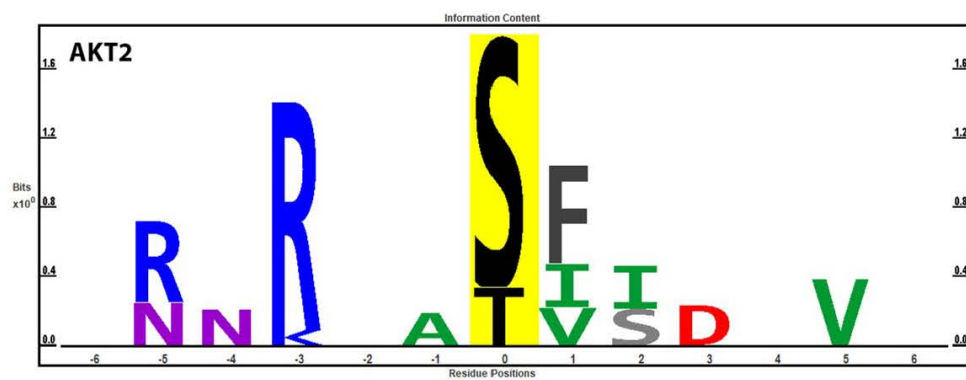
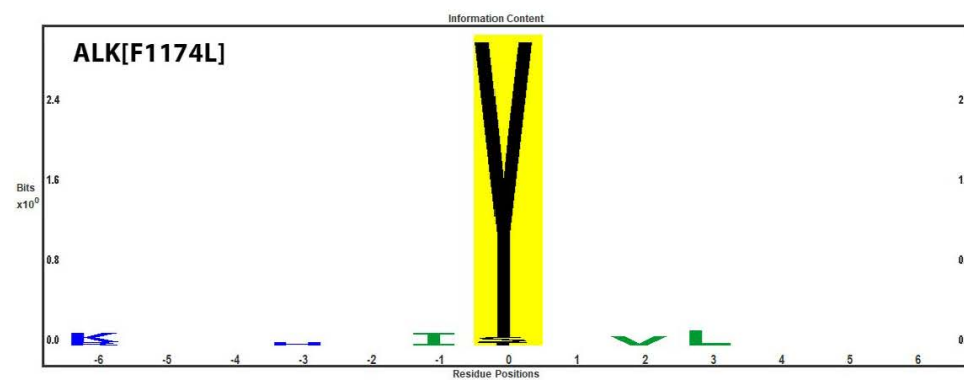
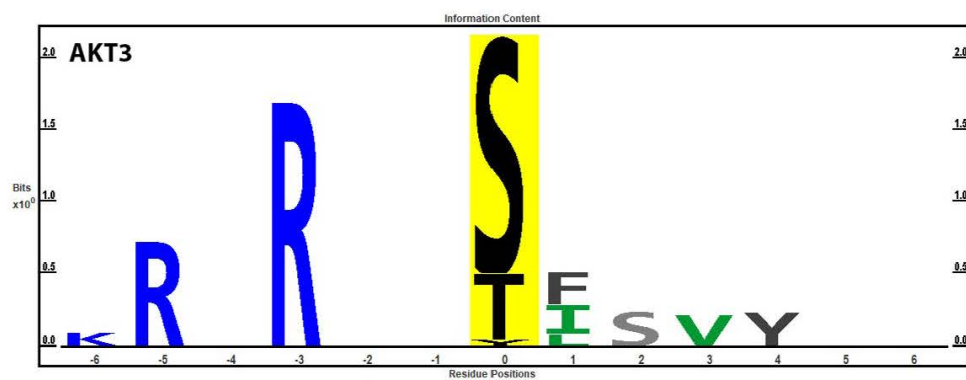
Amino acids are color coded based on their properties. **L, I, M, V, A** - green. **K, R, H** – blue, **Q, N** - purple, **D, E** - red, **F, W, Y, P** - dark grey, **S, T** - light grey, **C** - pink, **G** - orange.

B represents the N-terminus and **J** represents the C-terminus.

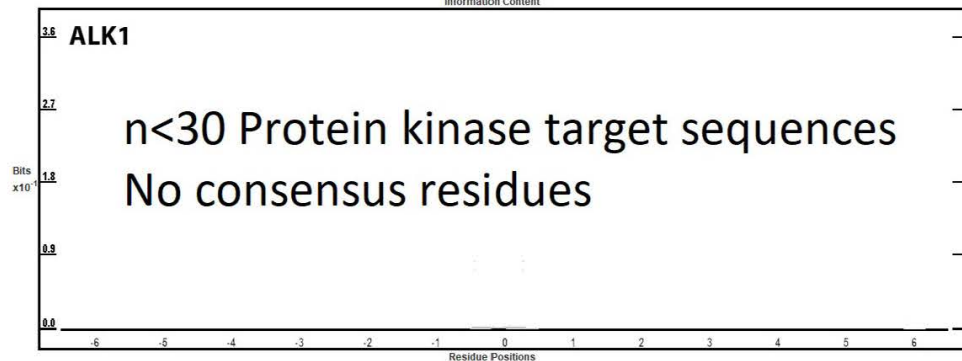
Created by Brian Poll, Kirby Leo, and Mark A. Knepper in the Epithelial Systems Biology Laboratory at the National Heart, Lung and Blood Institute as part of its Kidney Systems Biology Project. Please contact Mark Knepper with any comments or questions.



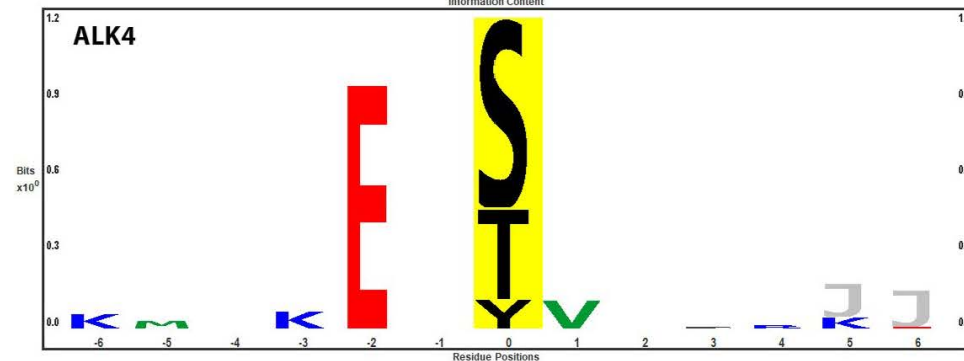




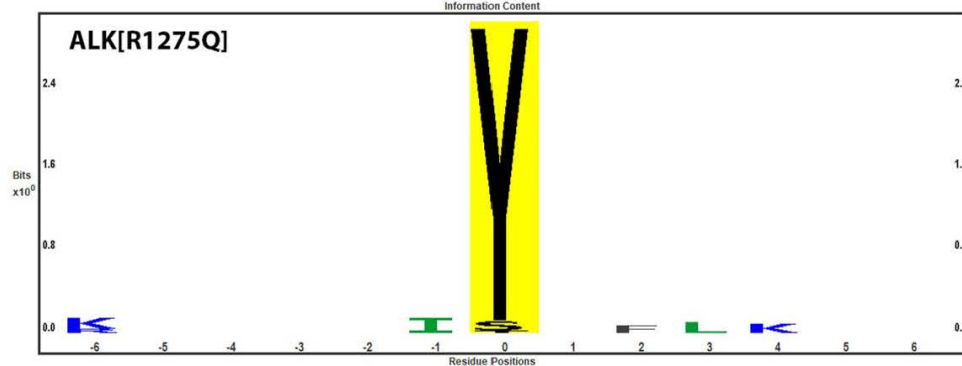
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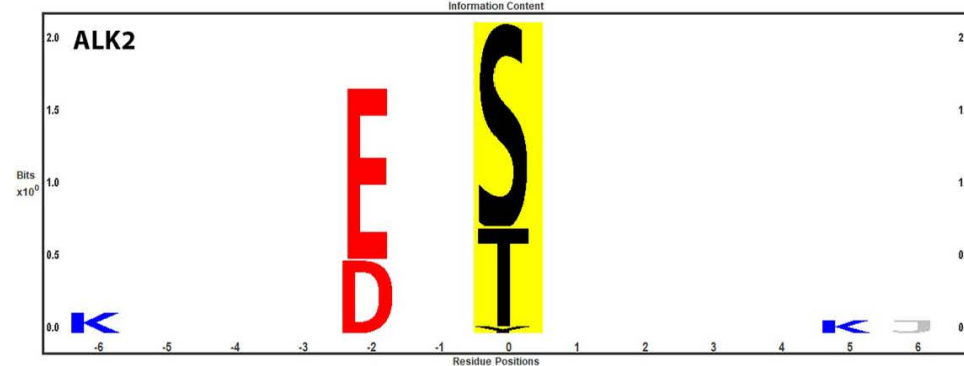
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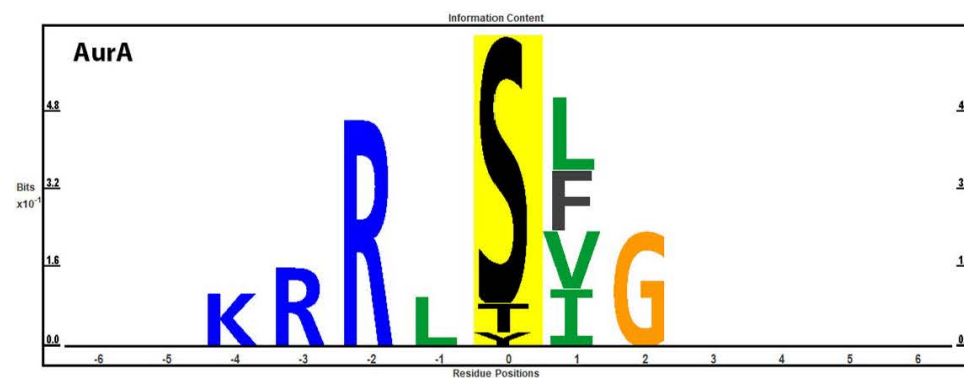
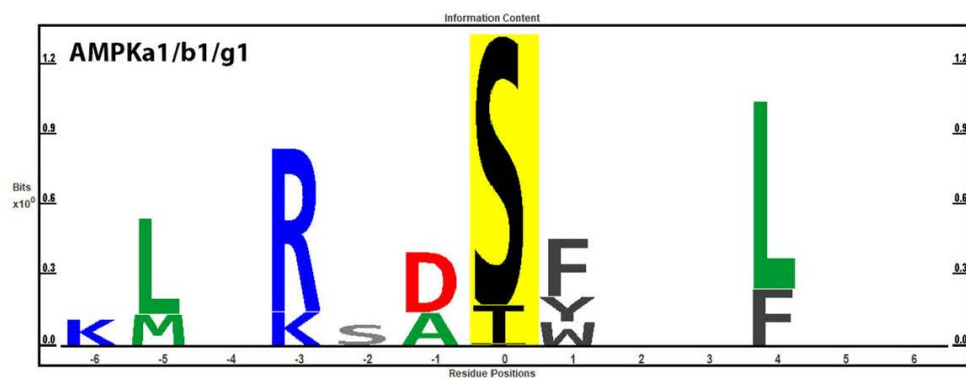
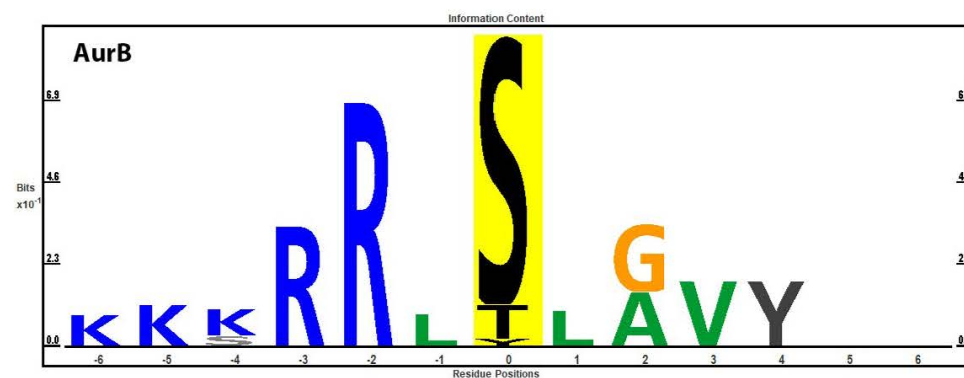
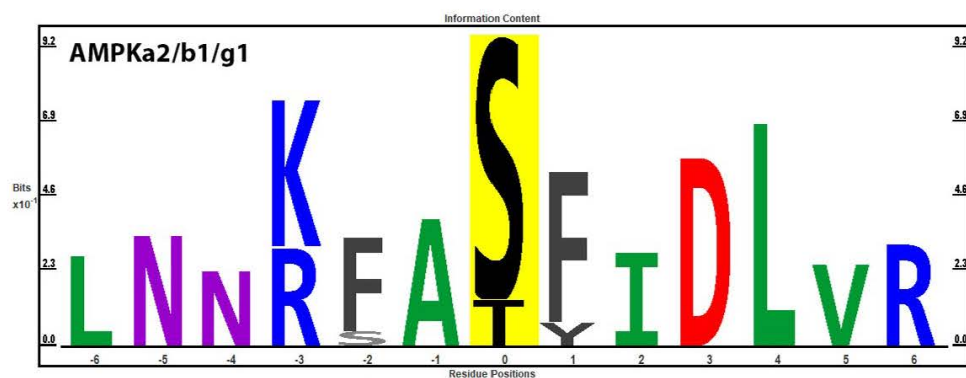


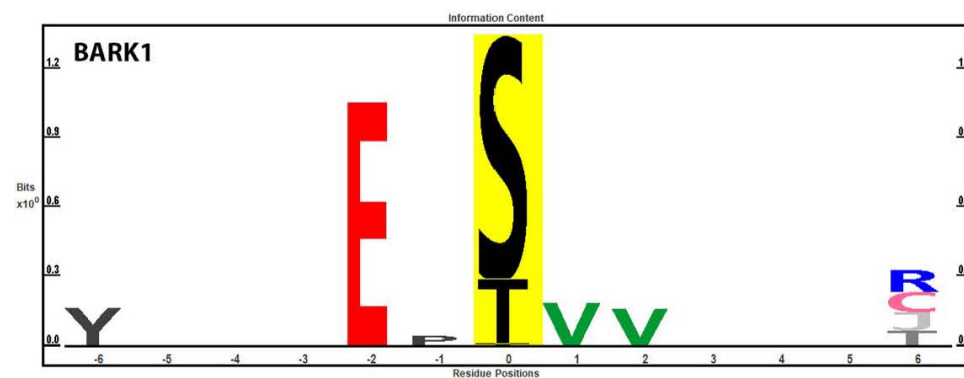
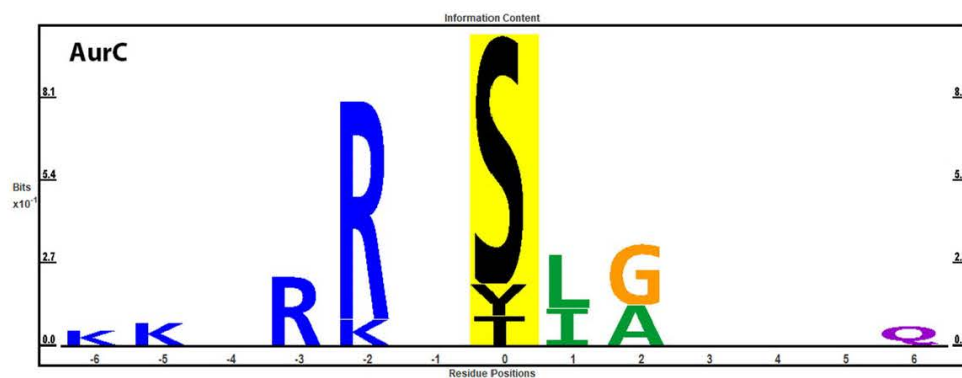
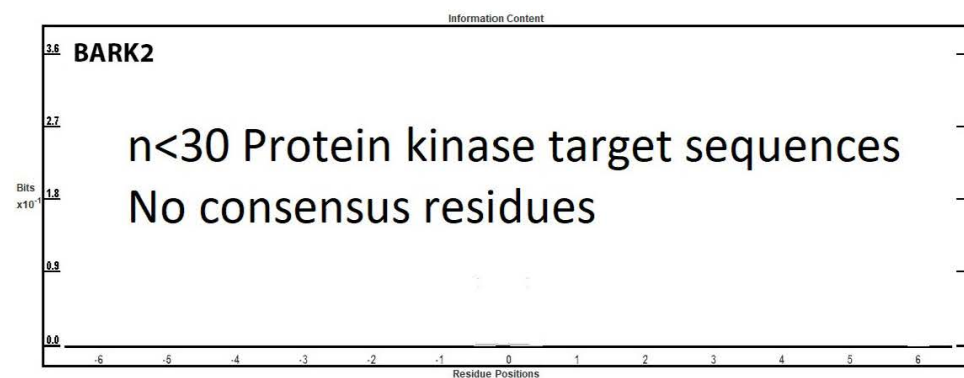
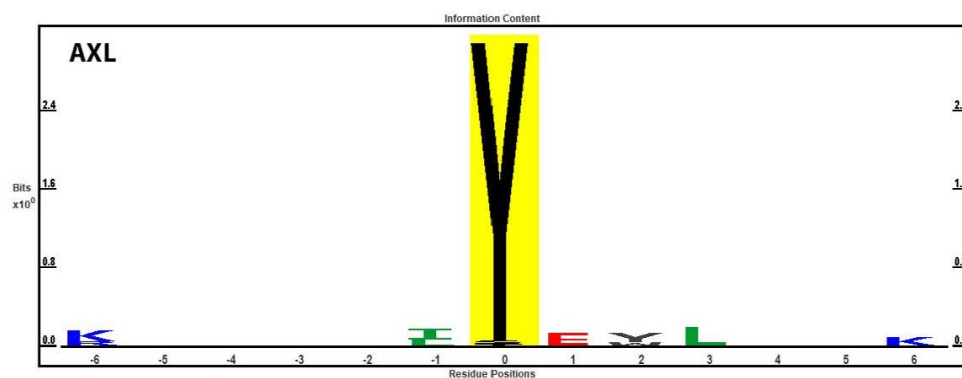
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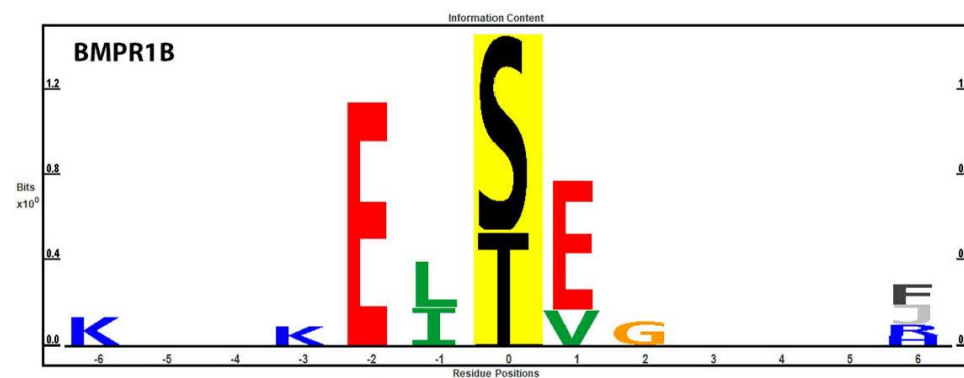
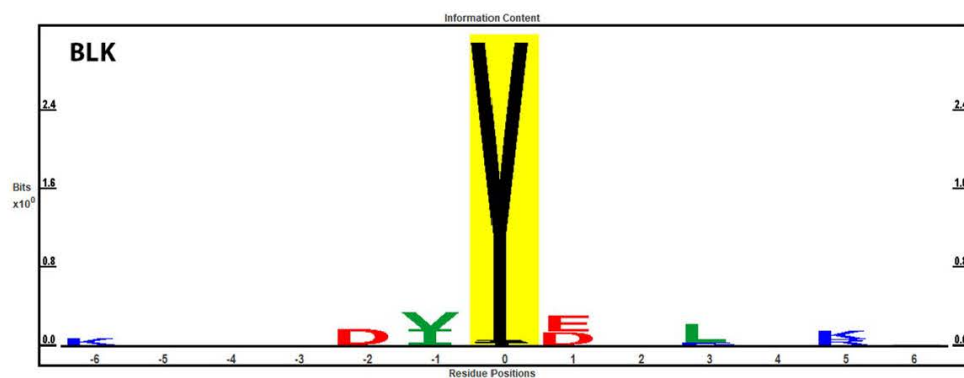
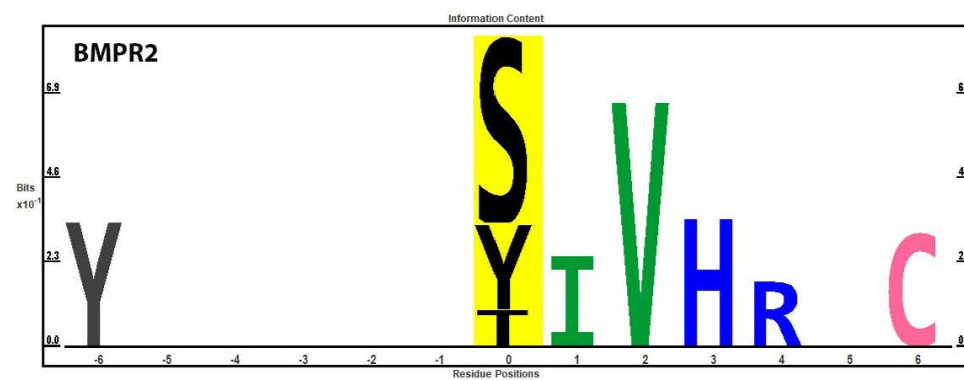
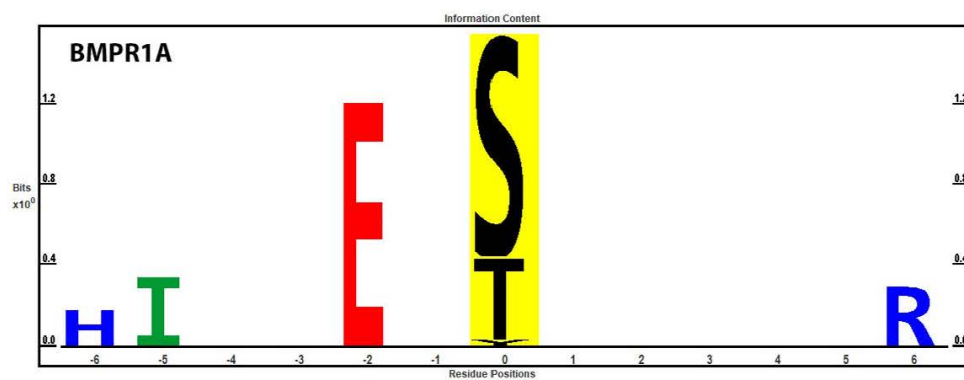


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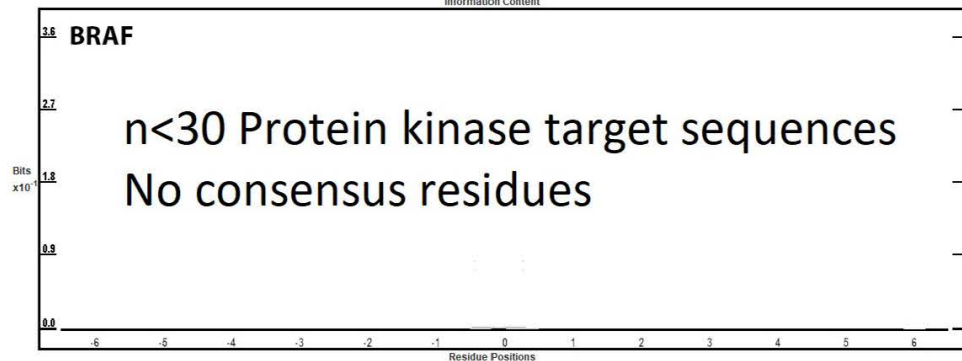




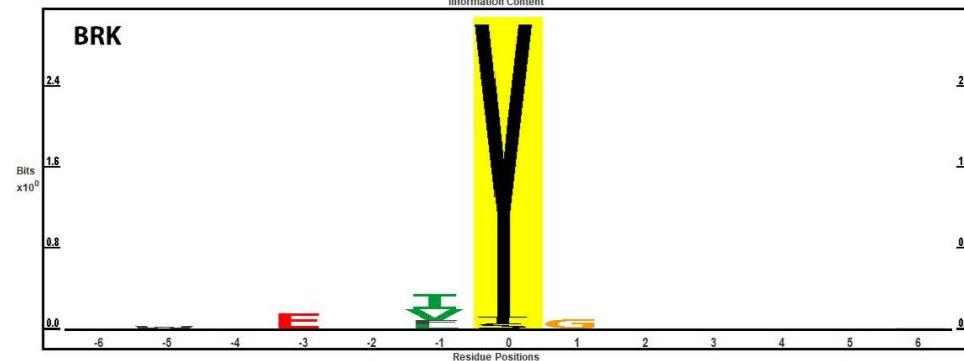




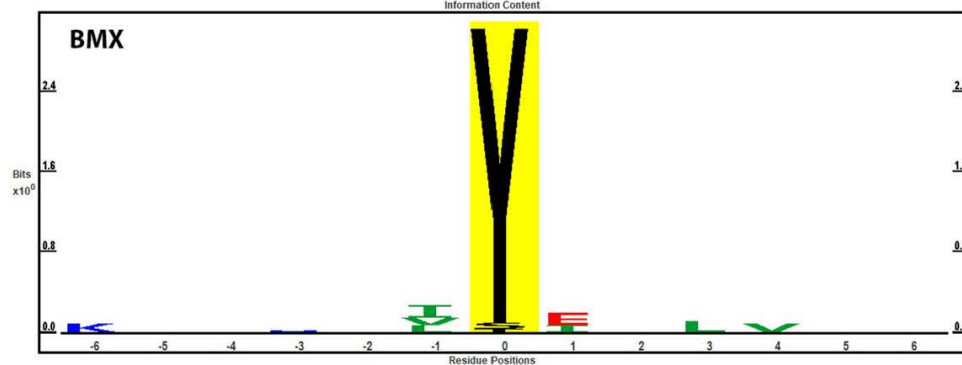
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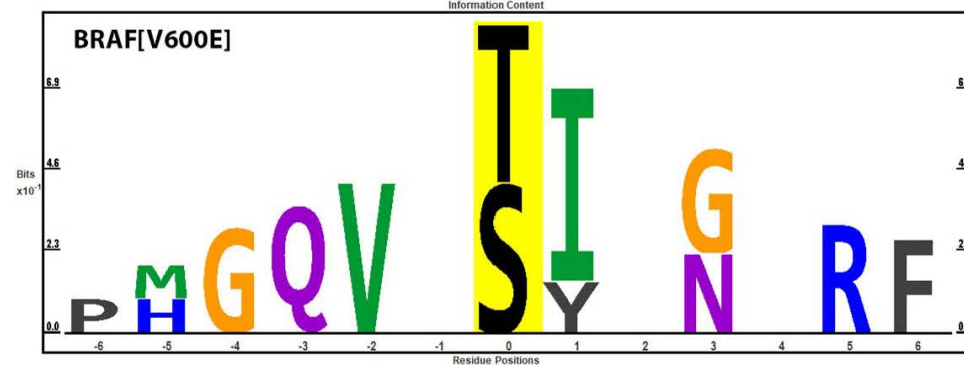
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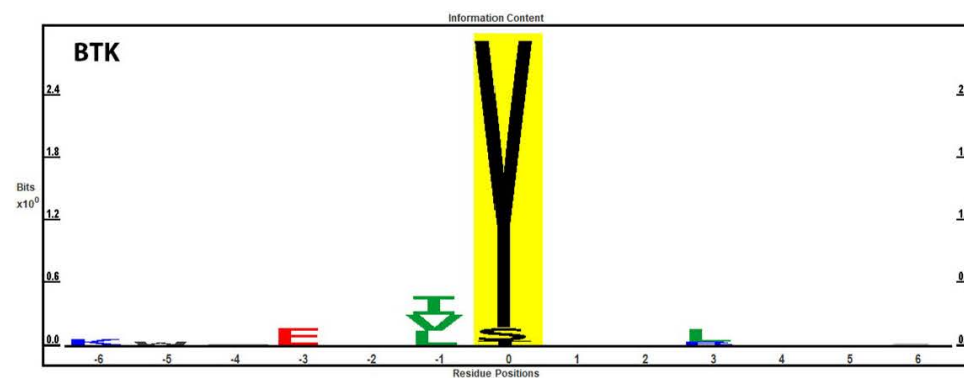
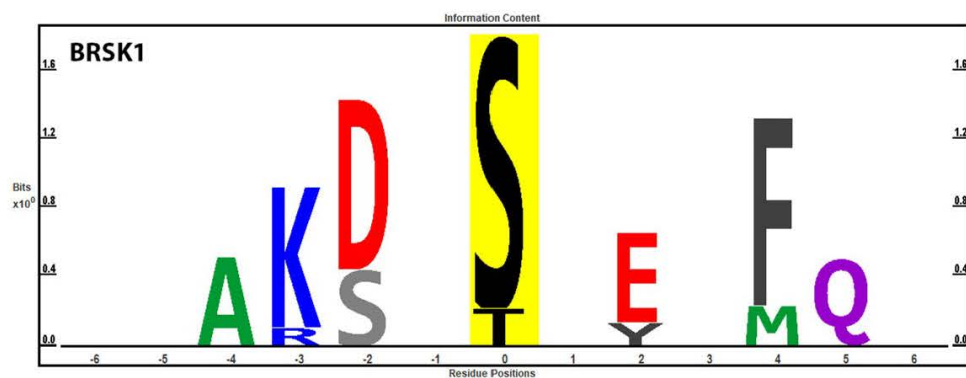
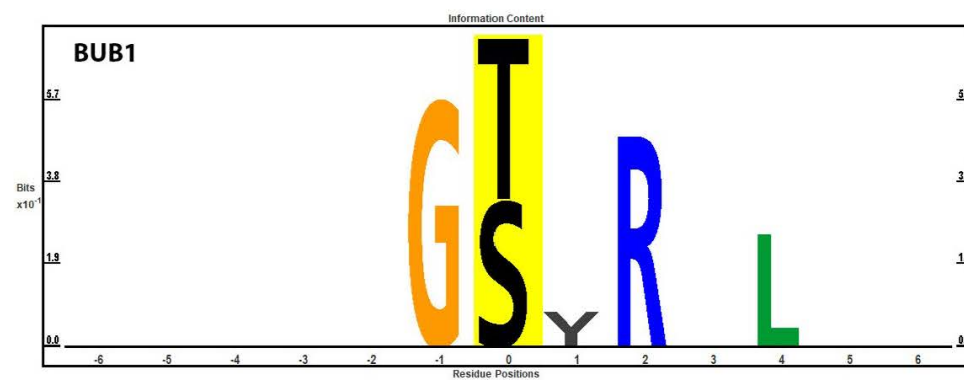
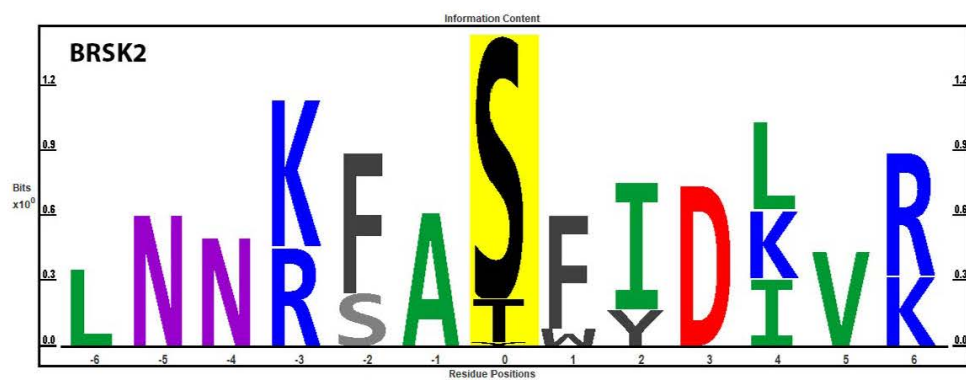


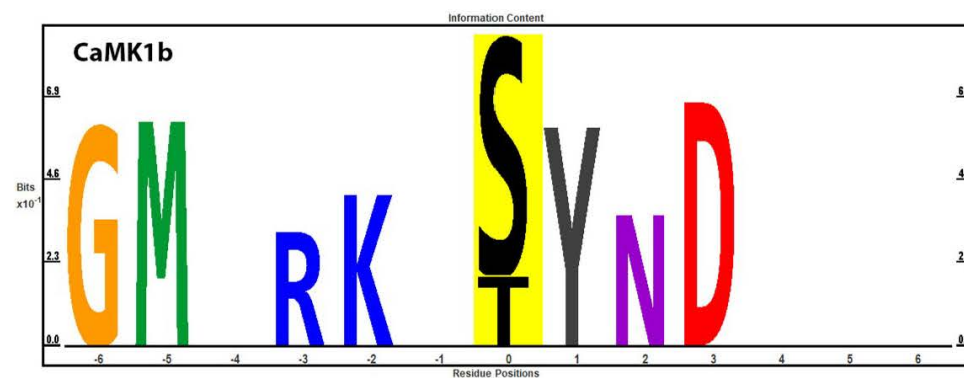
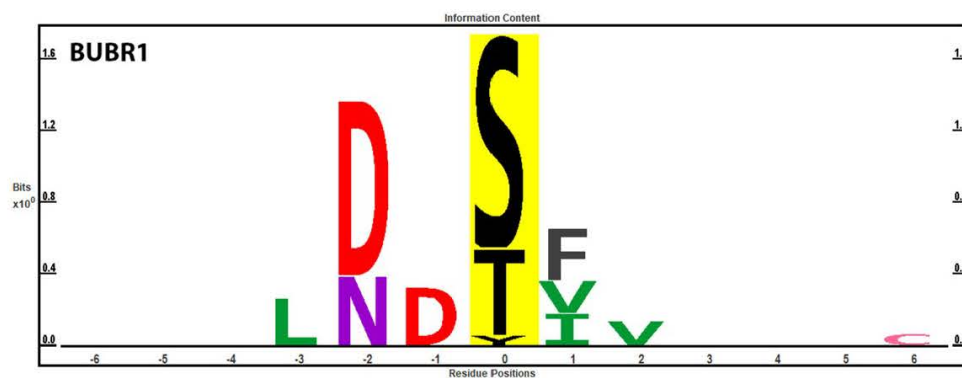
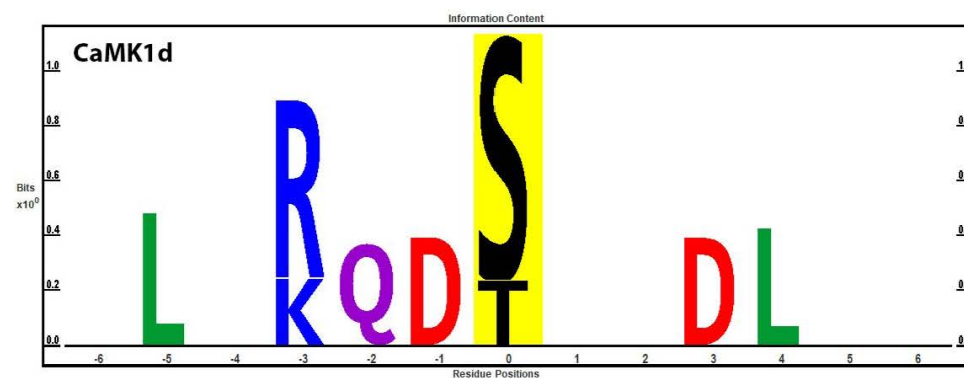
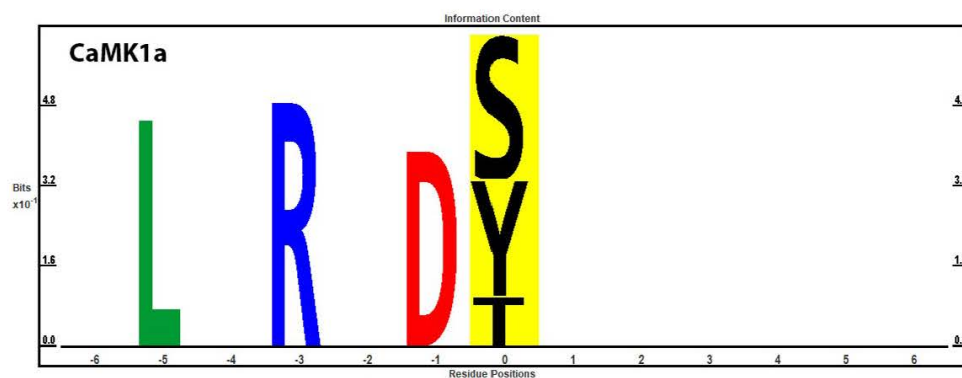
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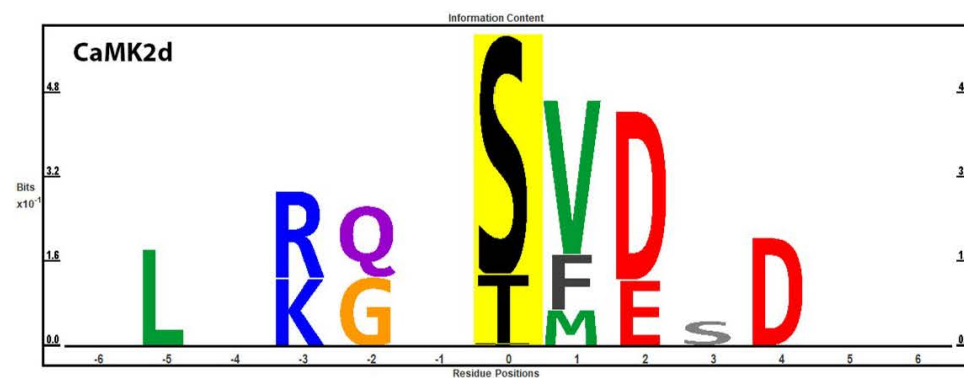
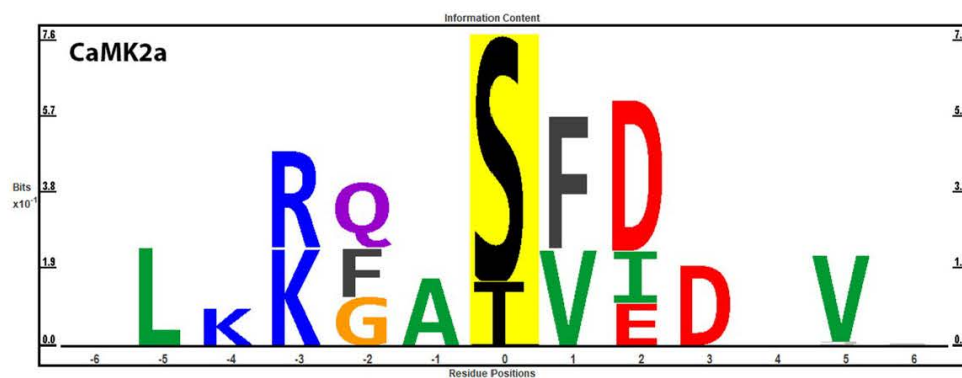
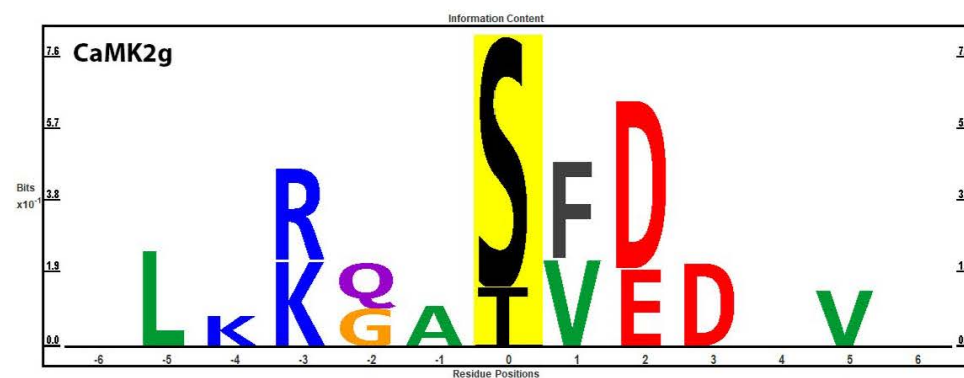
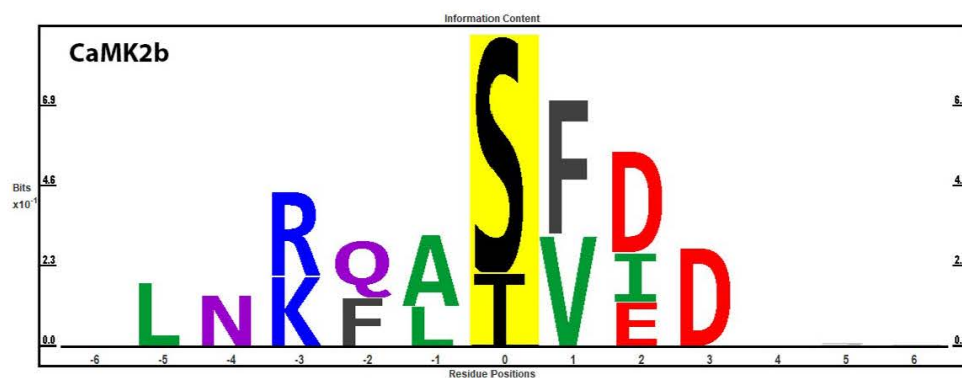


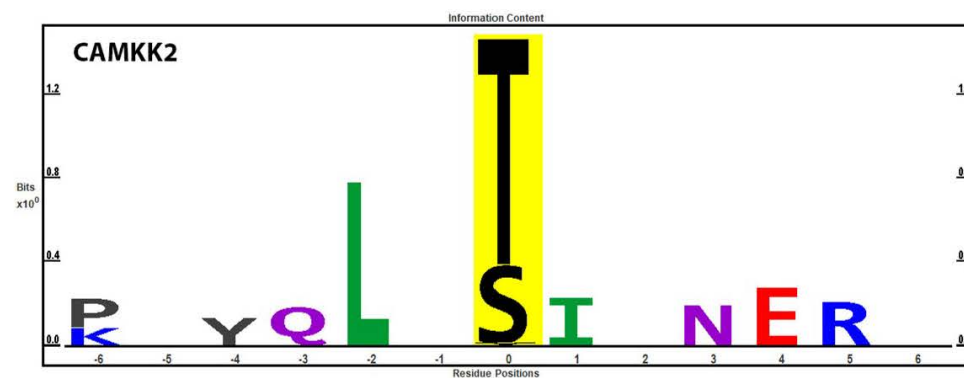
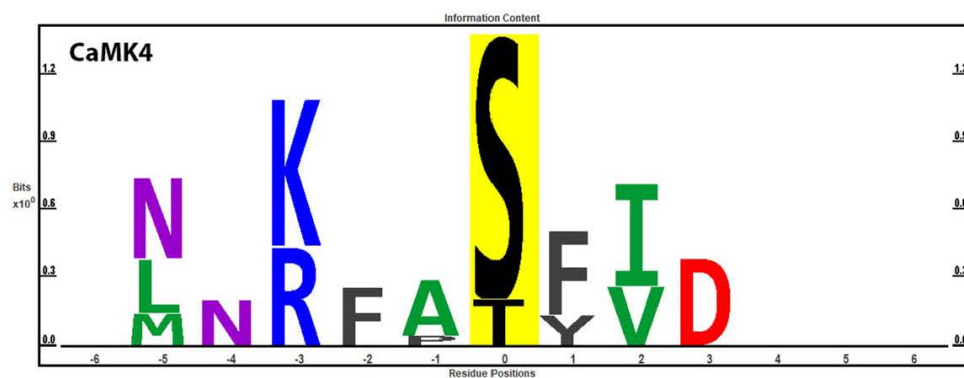
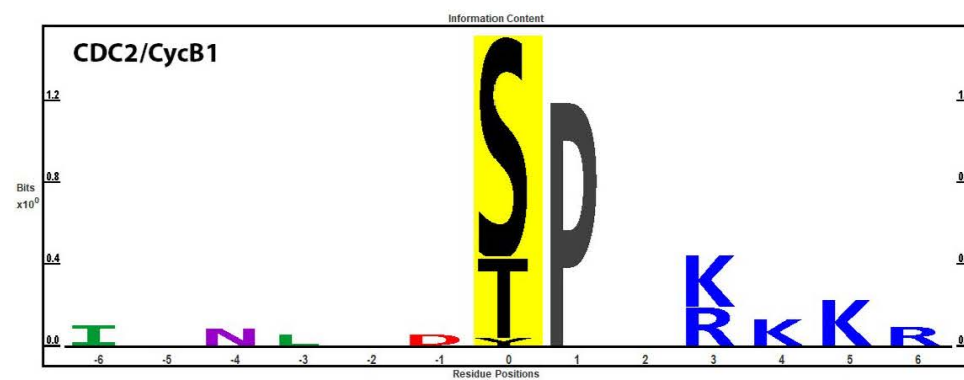
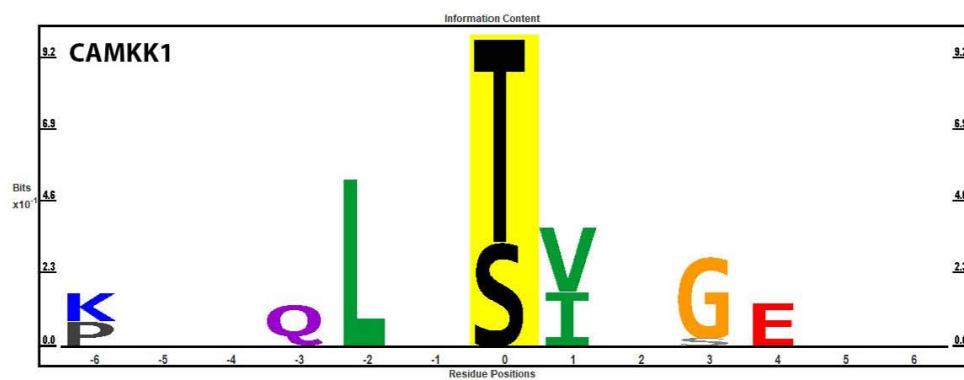
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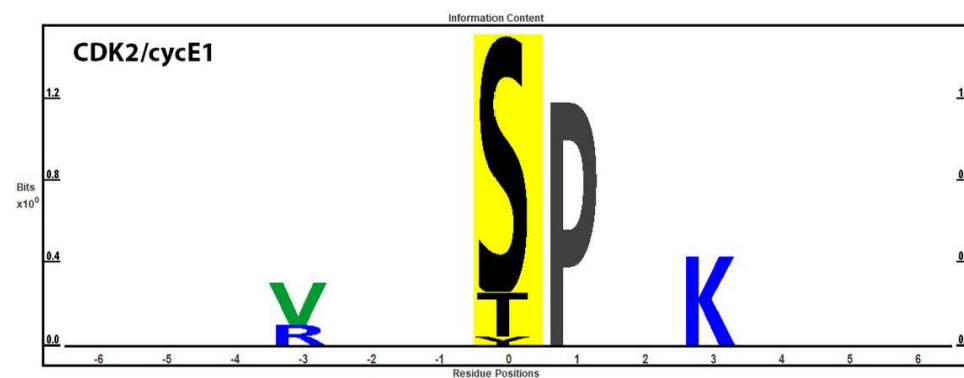
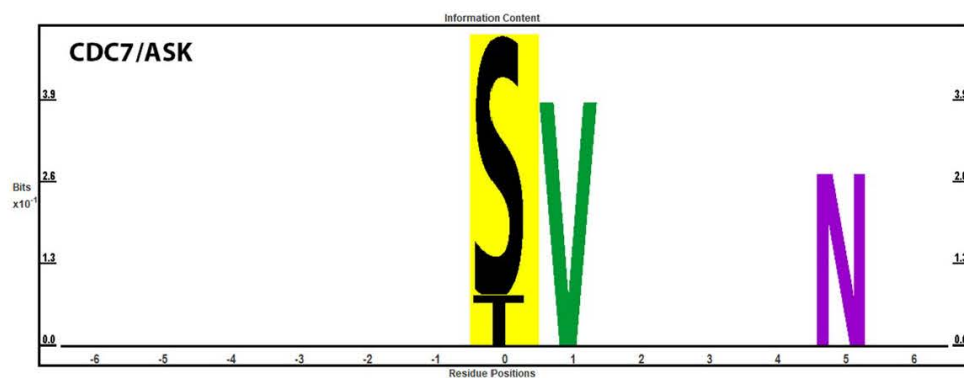
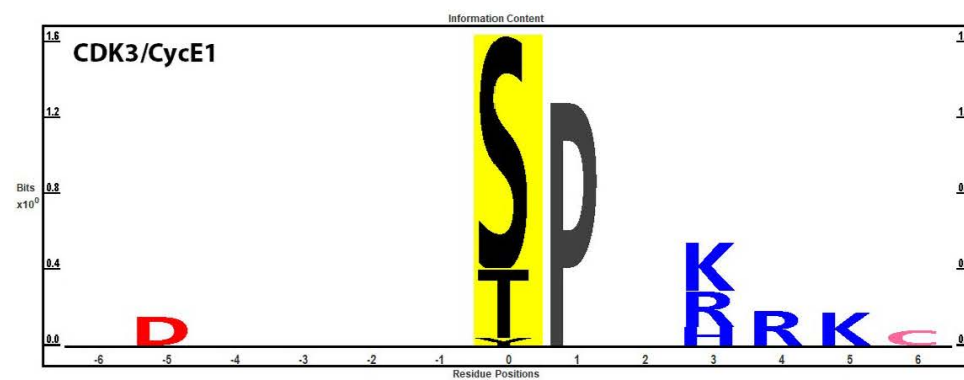
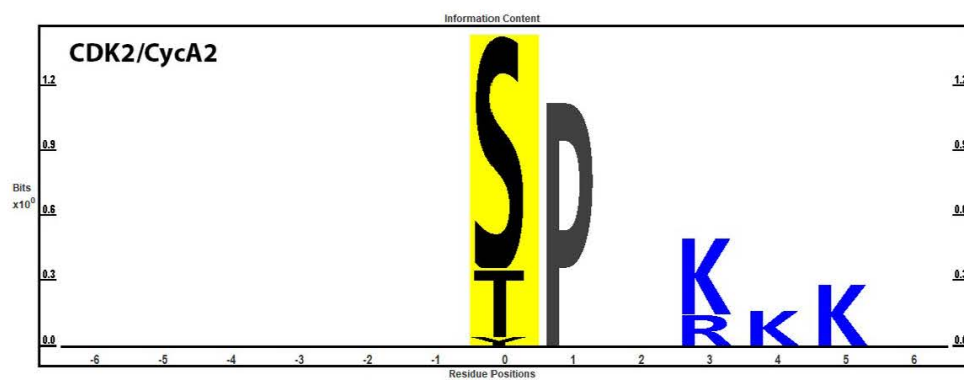




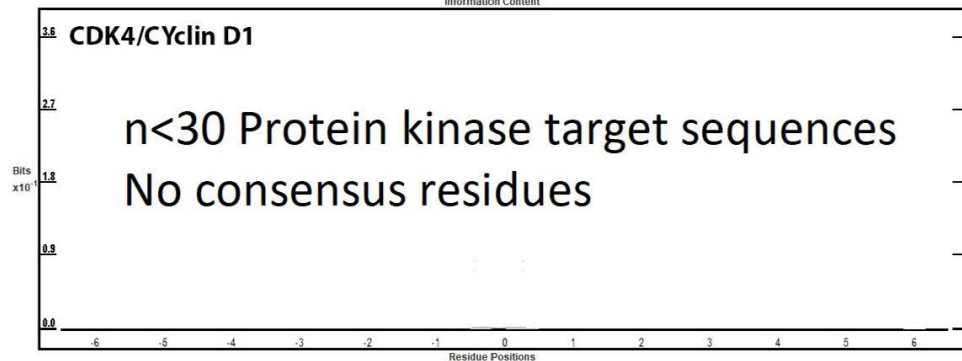




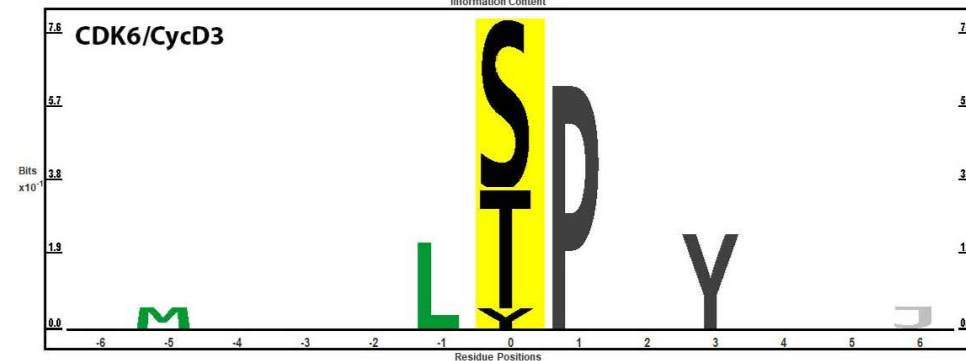




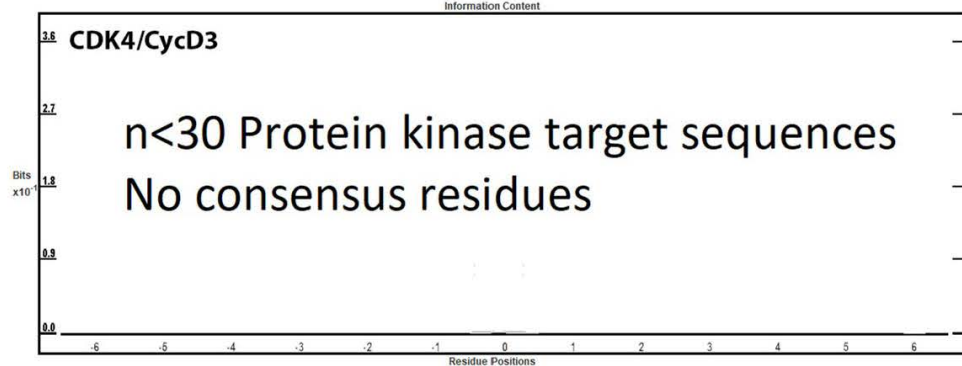
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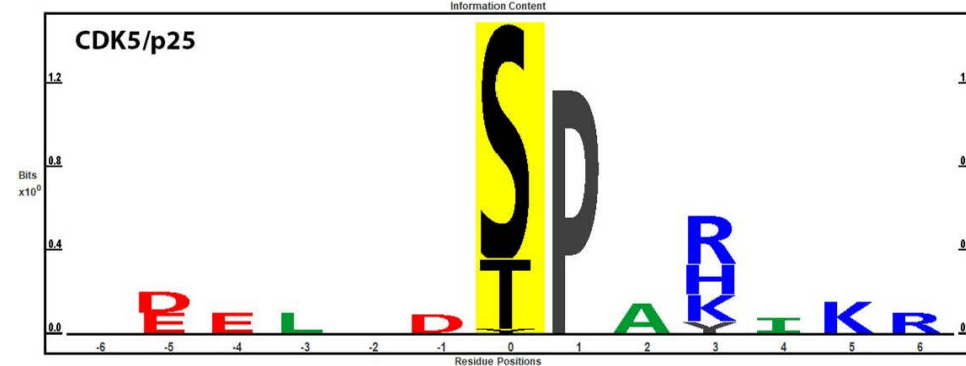
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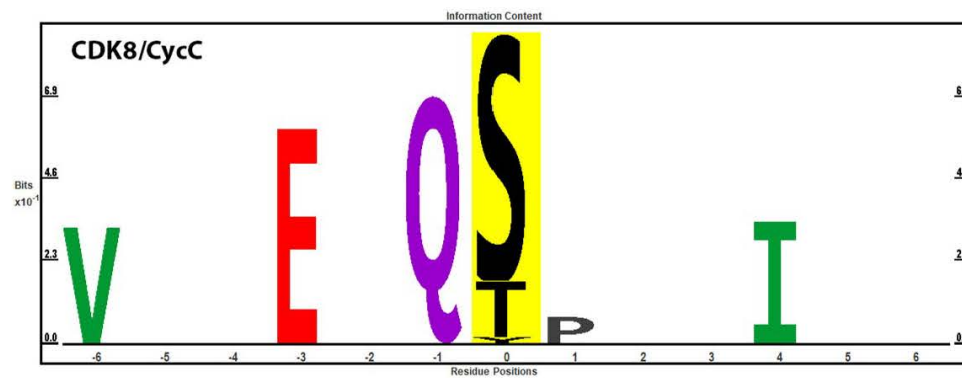
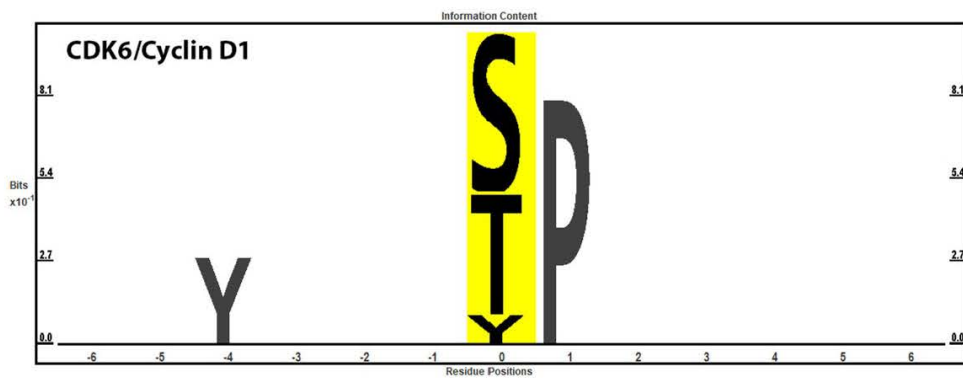
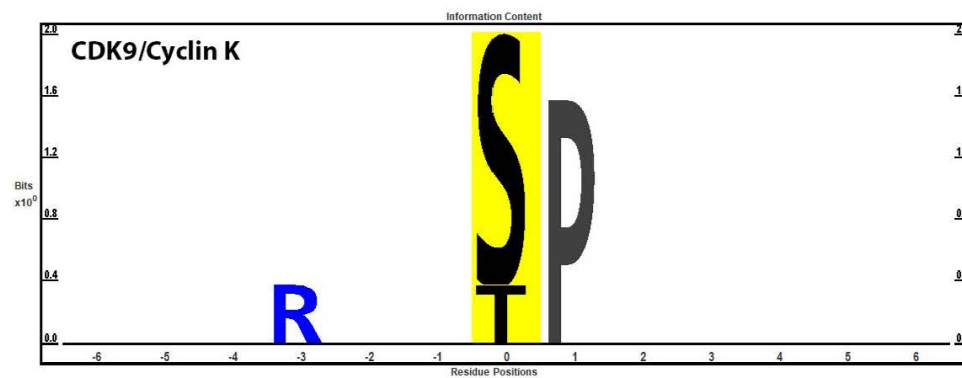
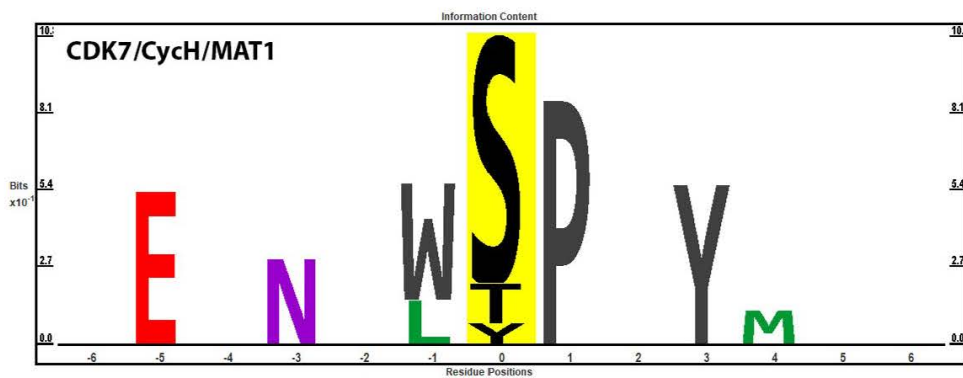


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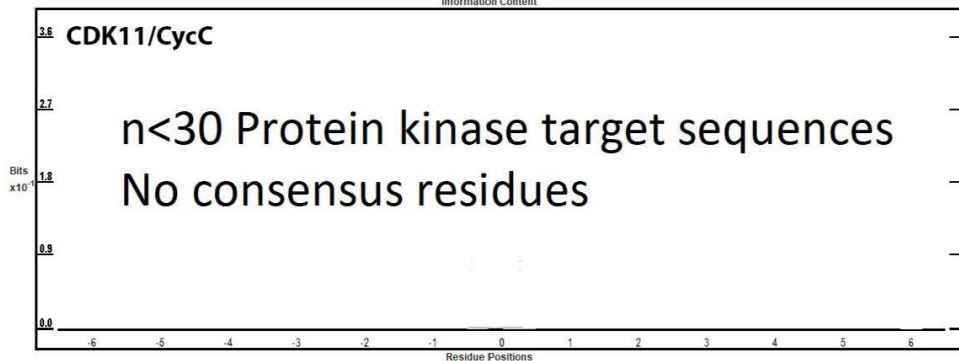


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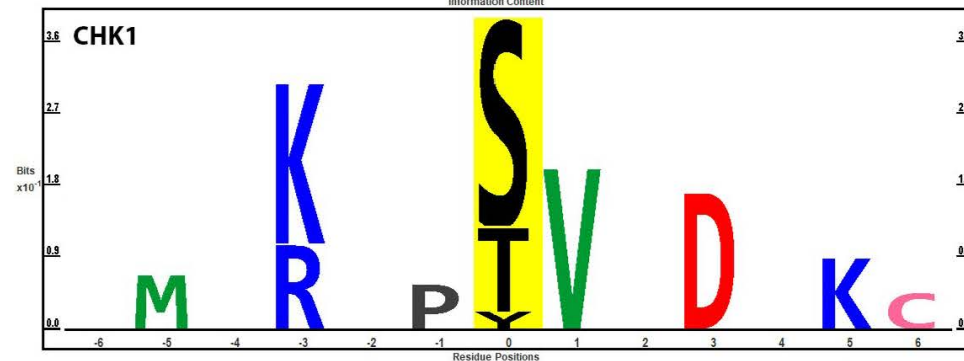




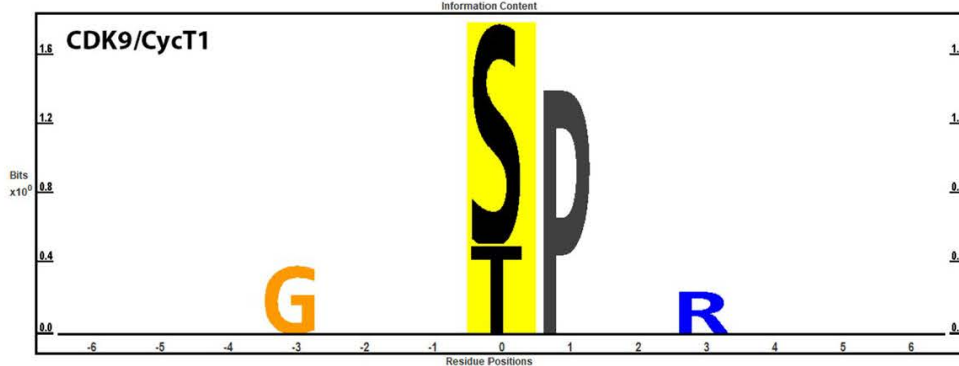
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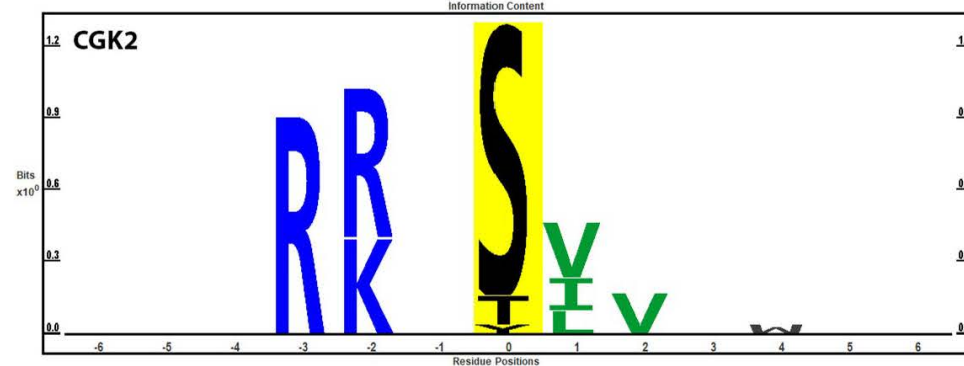
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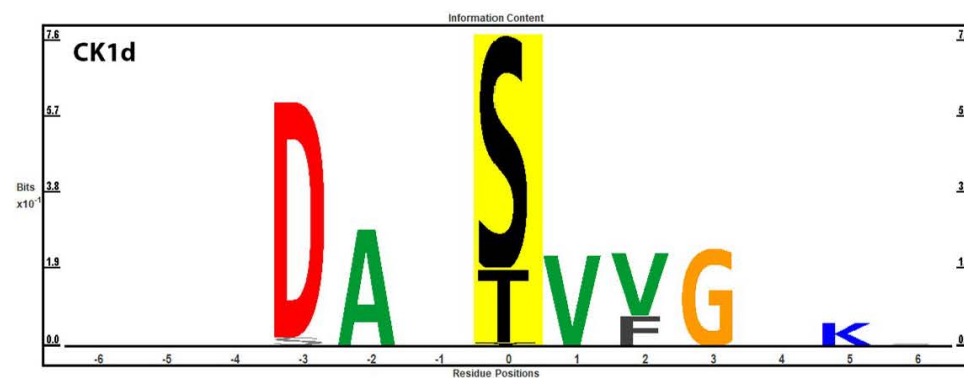
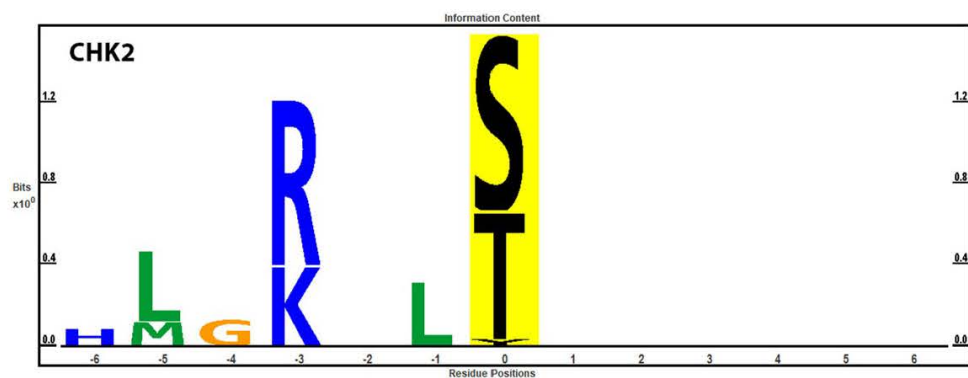
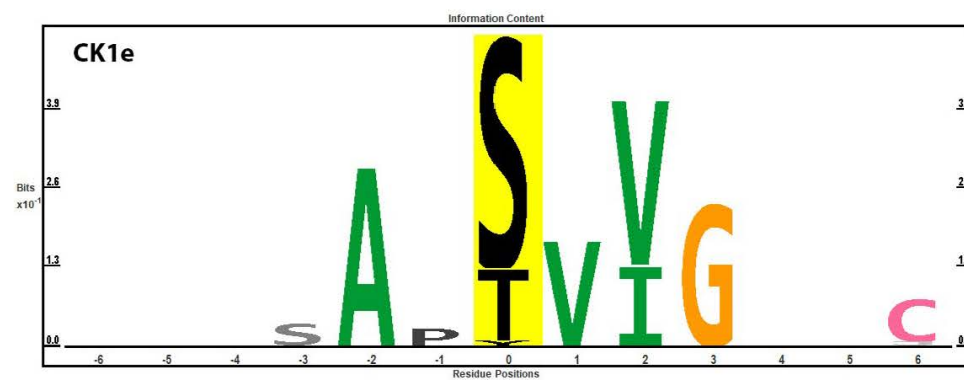
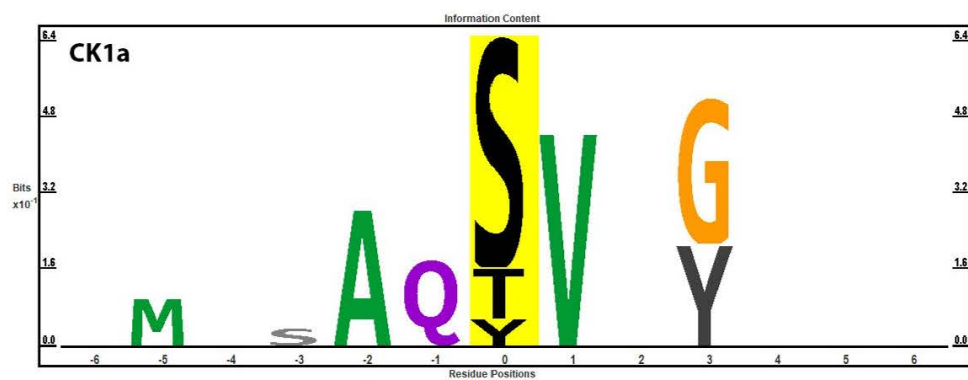


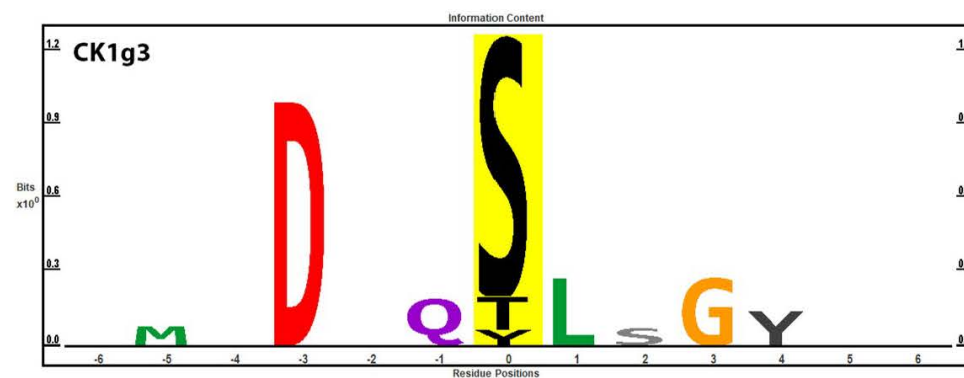
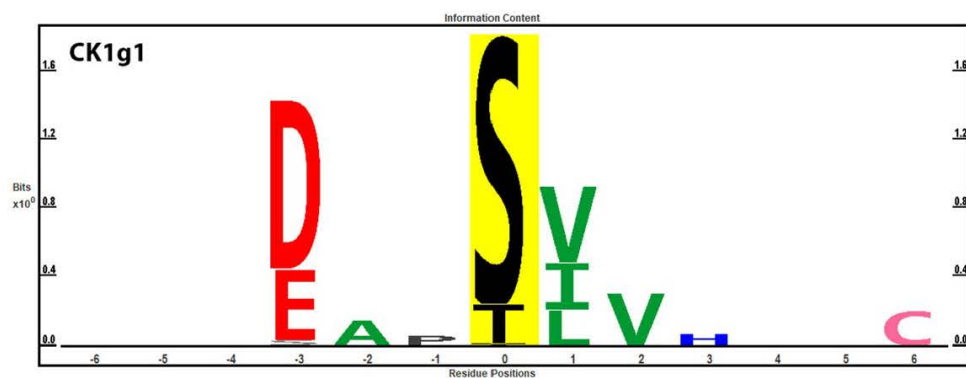
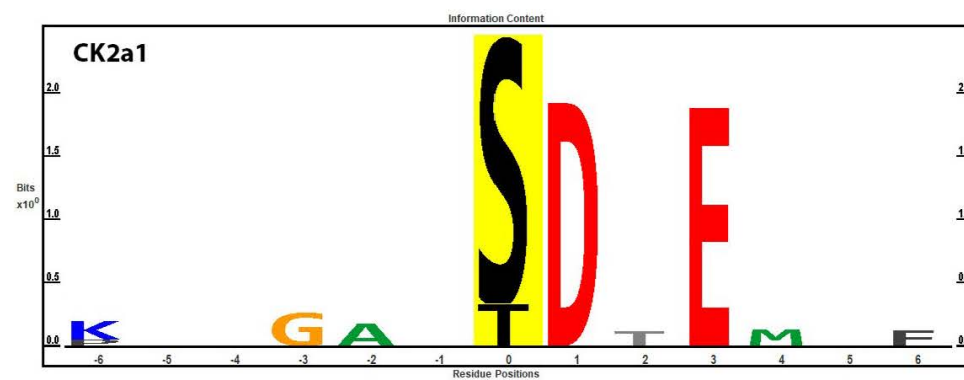
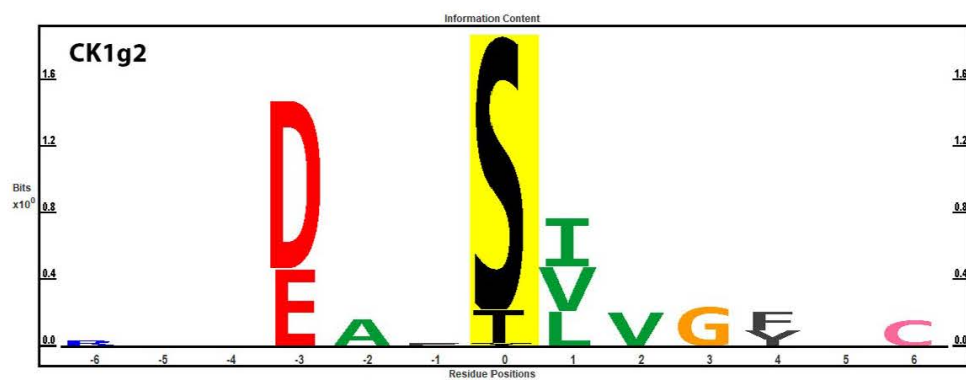
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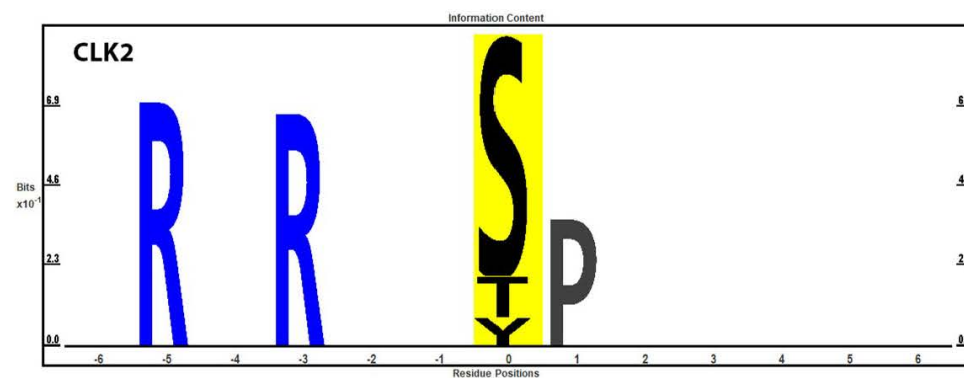
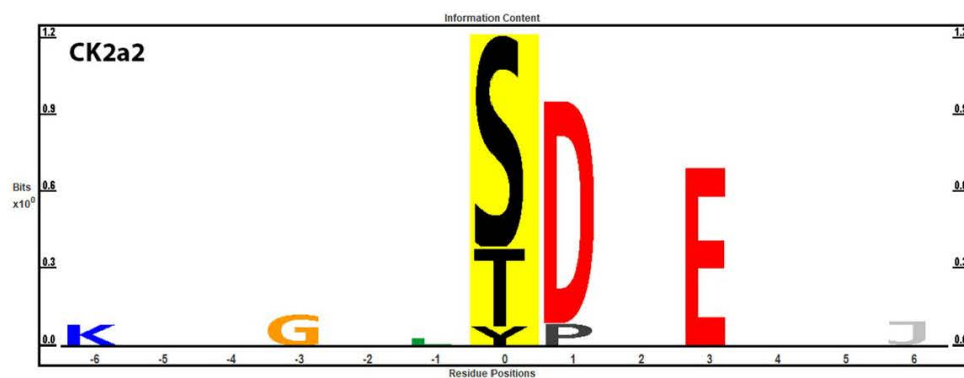
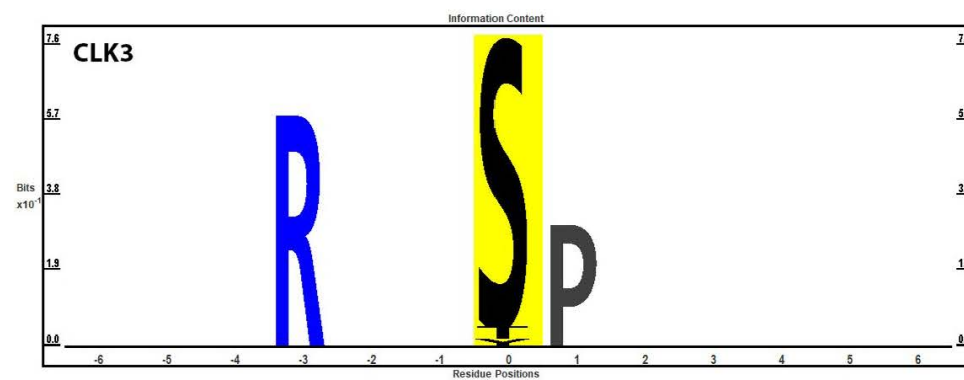
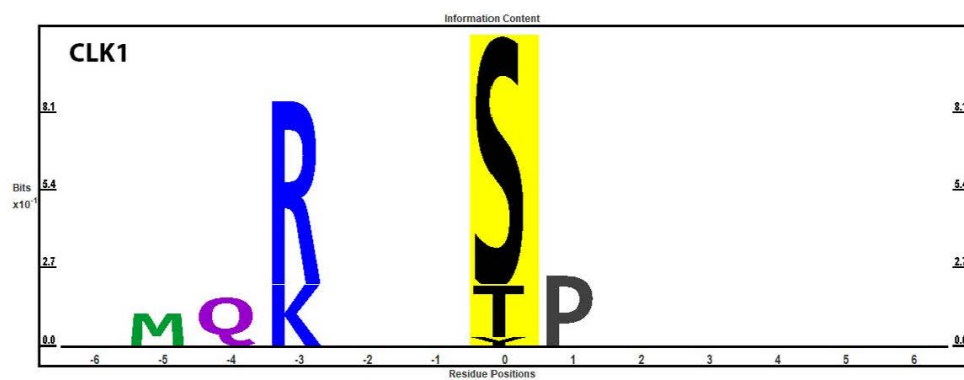


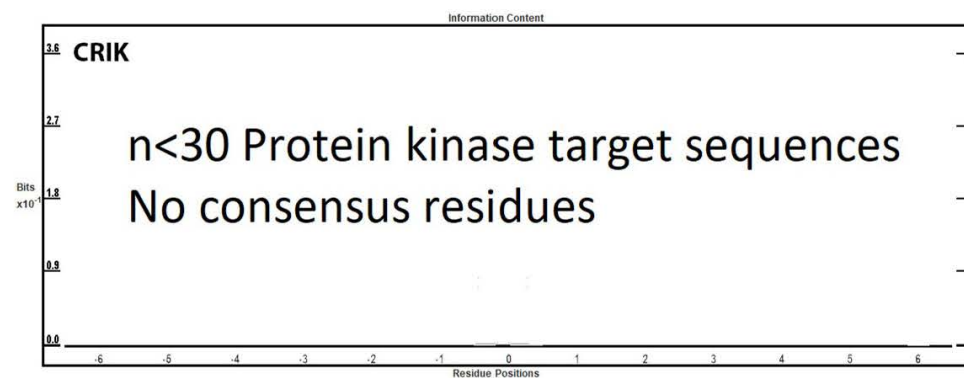
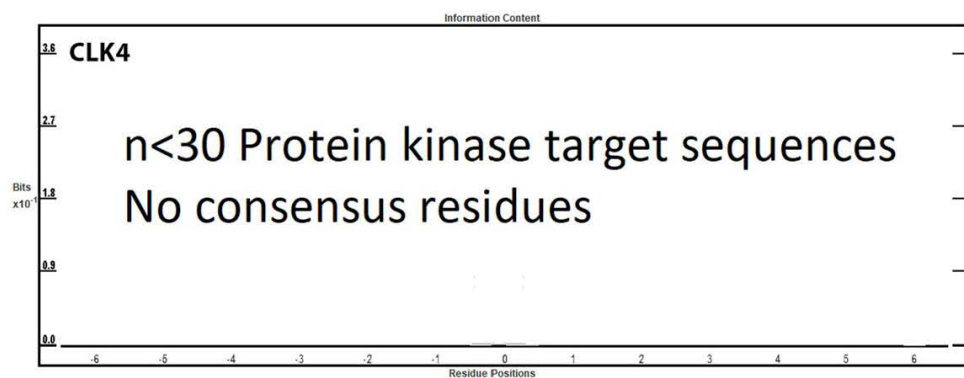
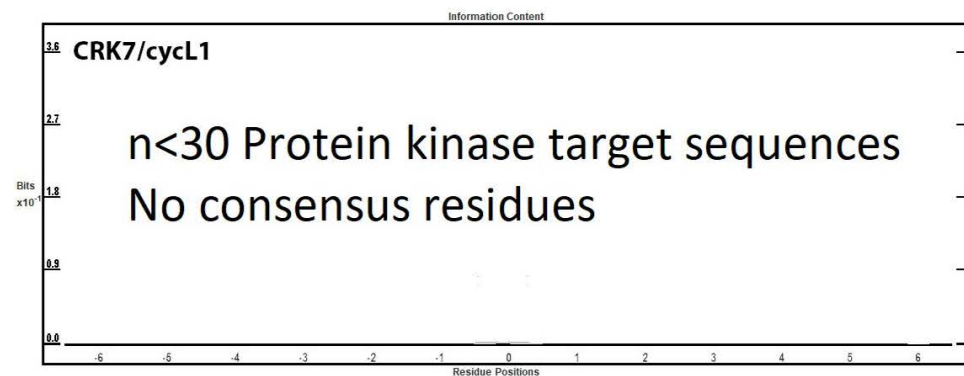
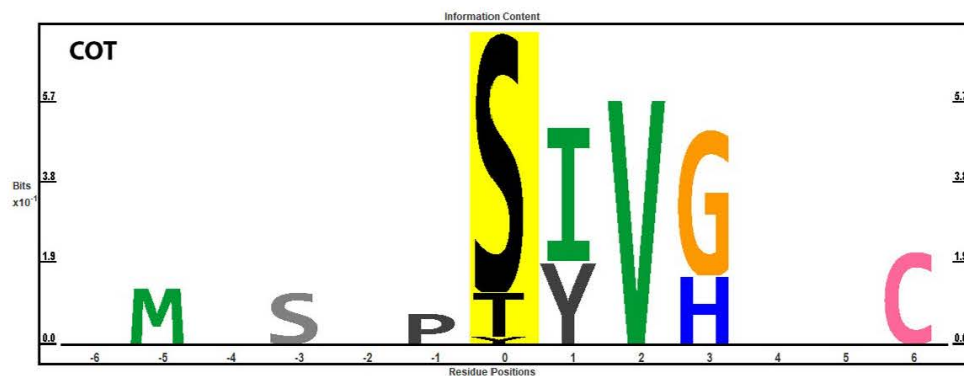
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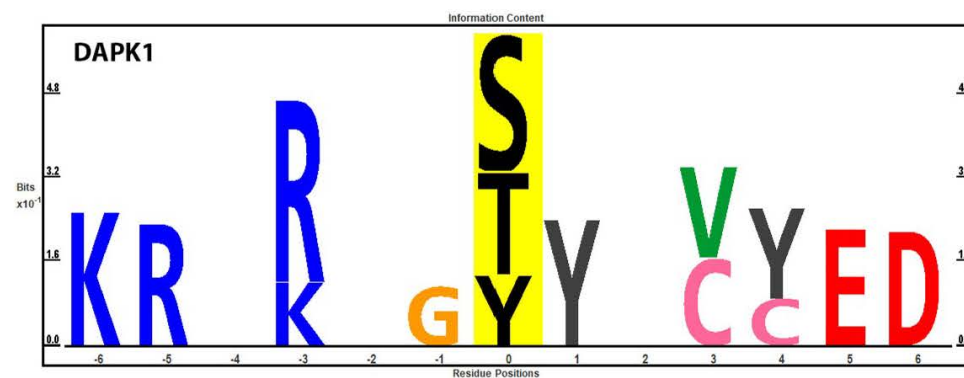
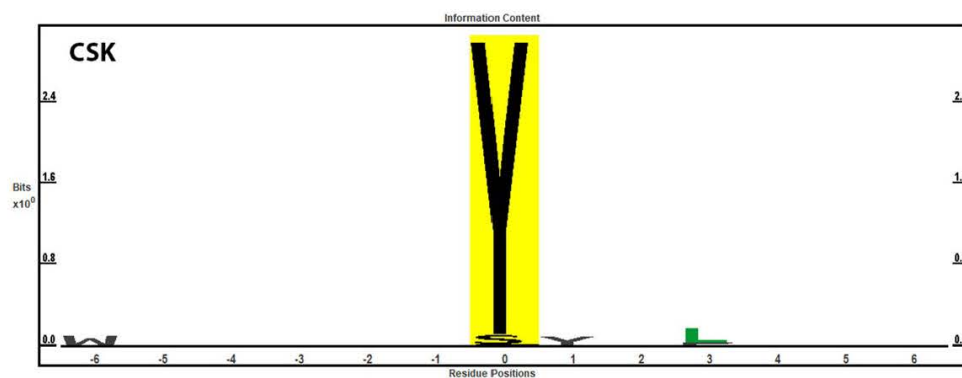
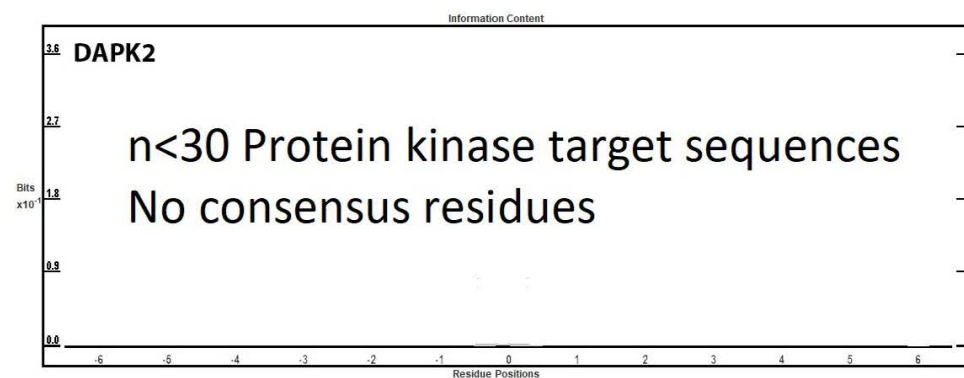
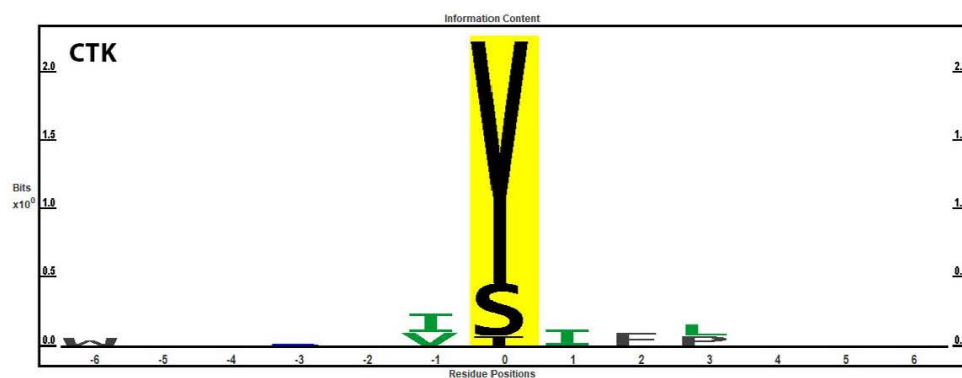


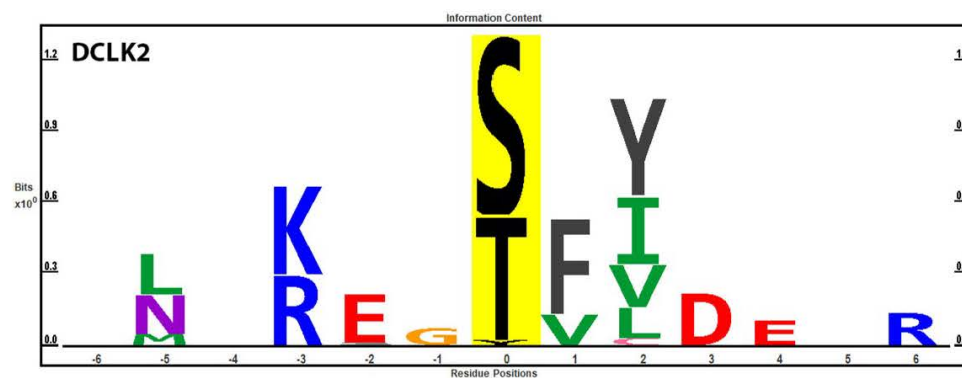
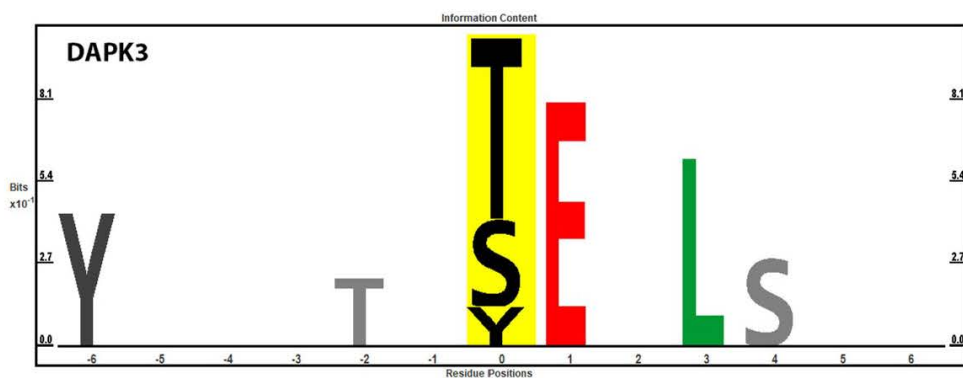
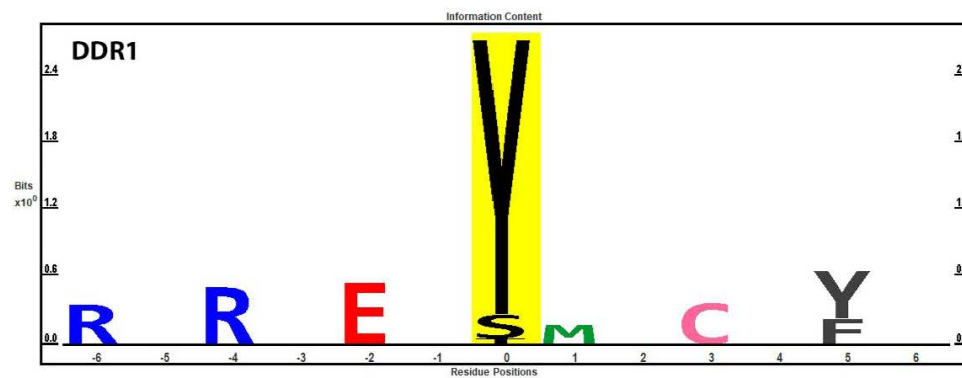
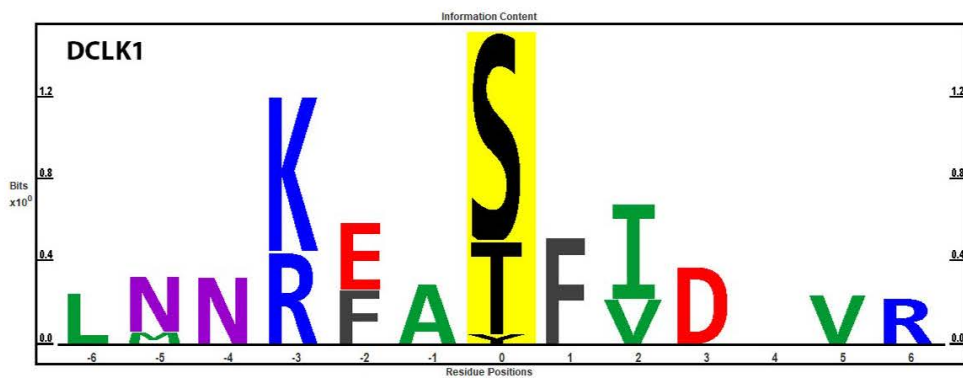




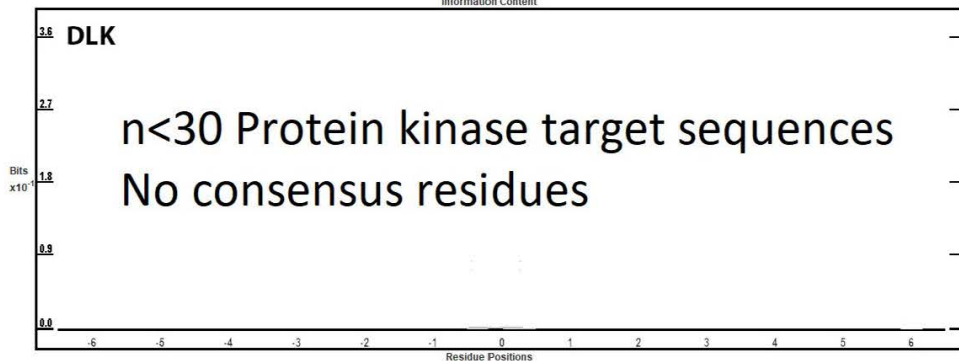




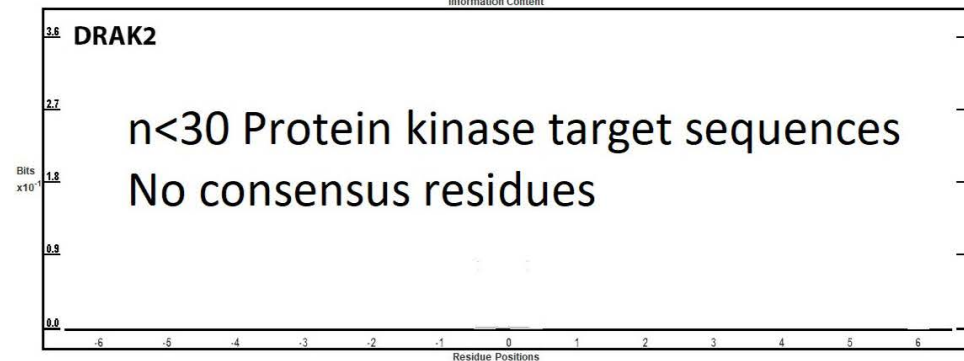




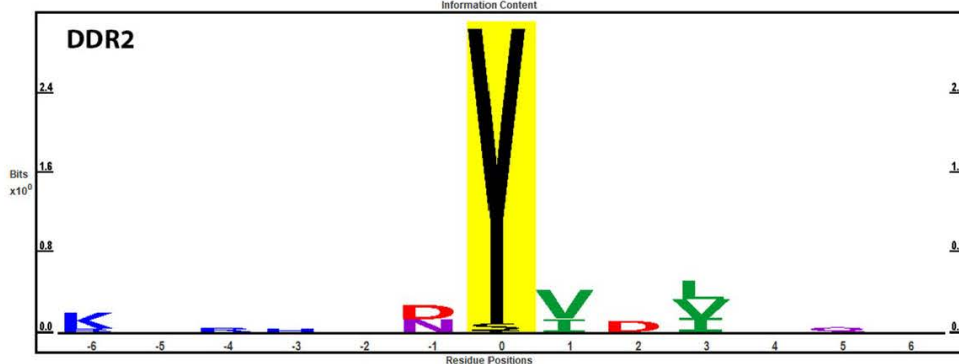
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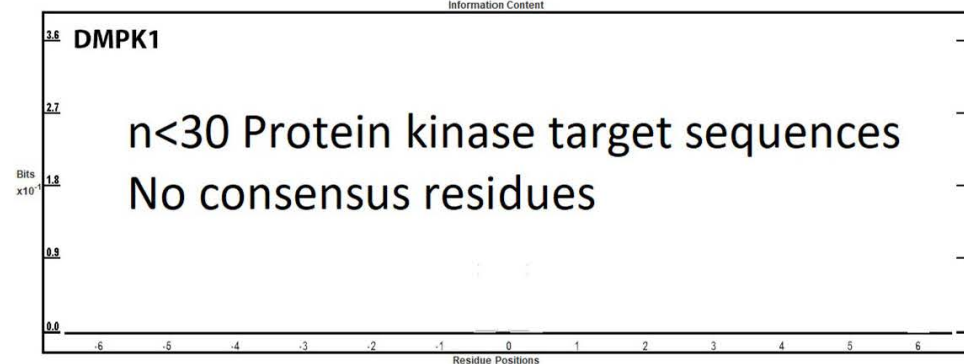
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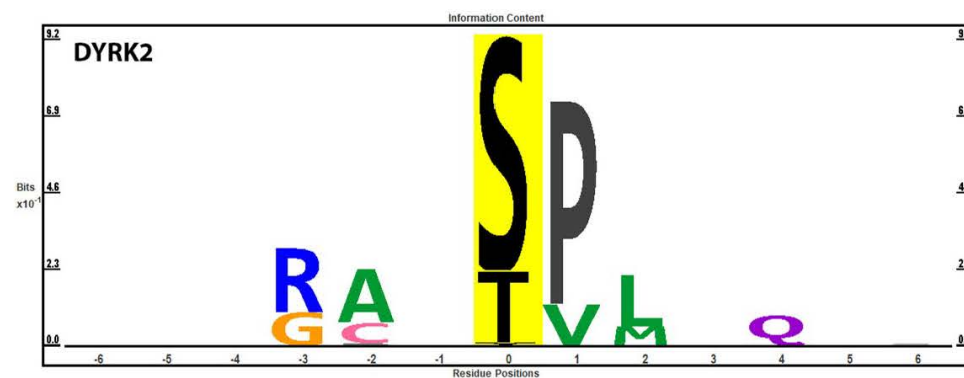
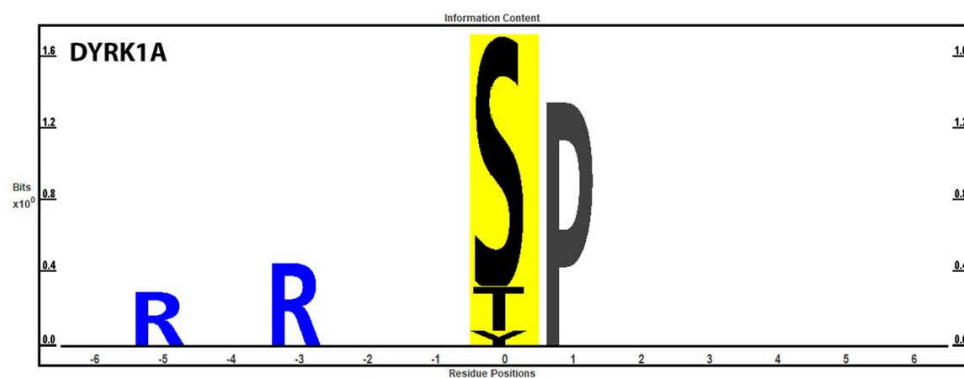
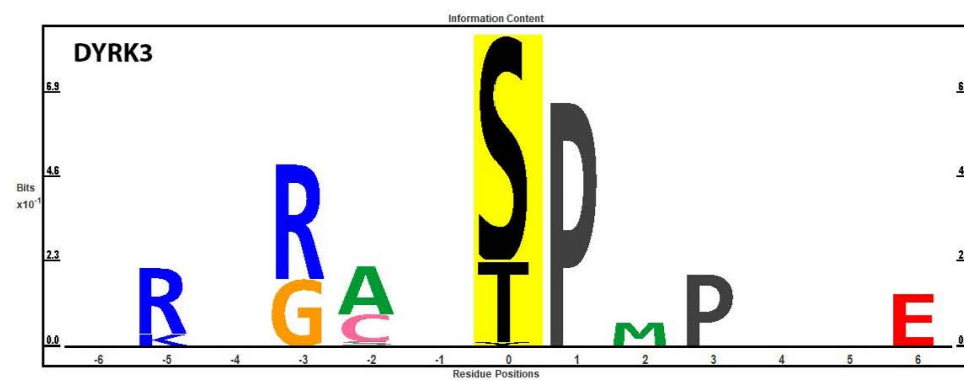
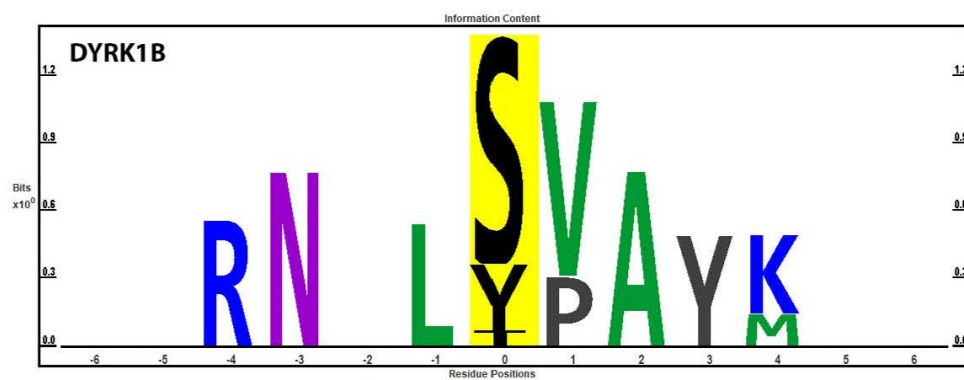


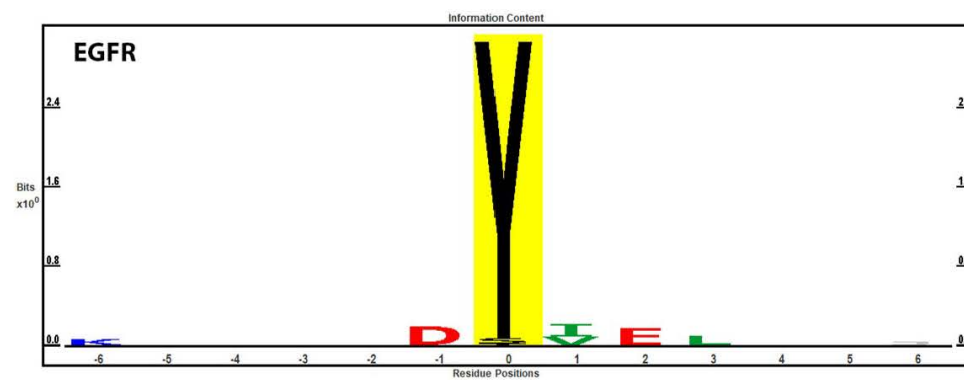
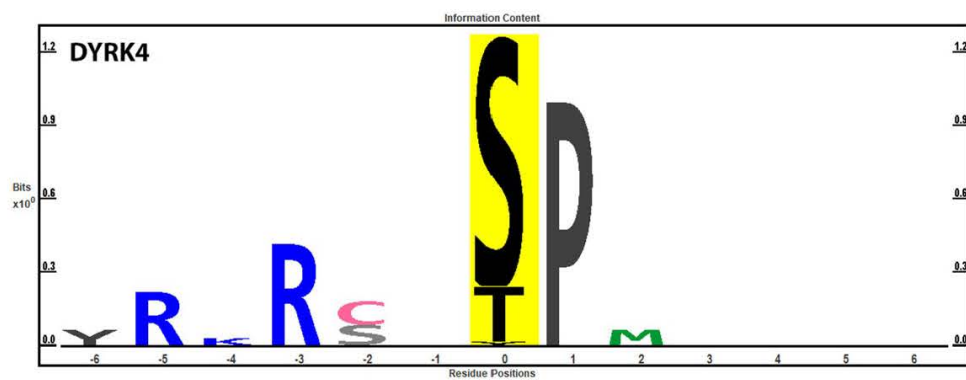
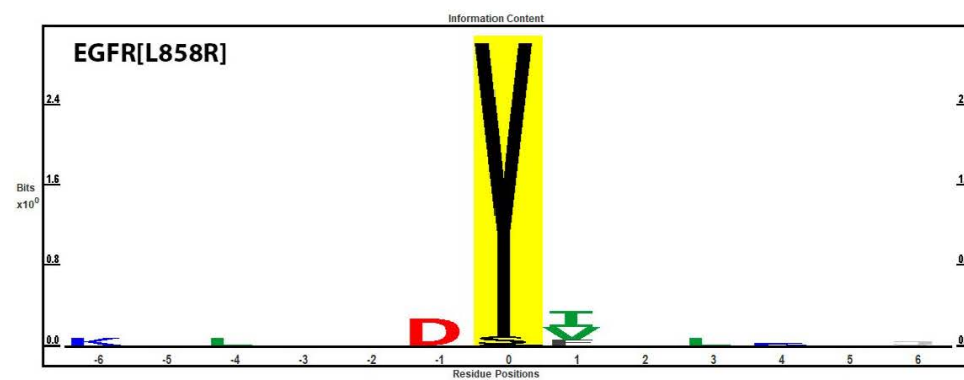
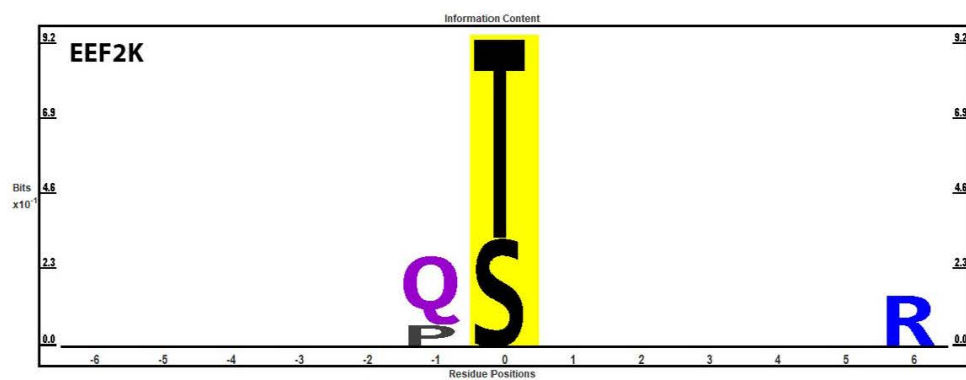
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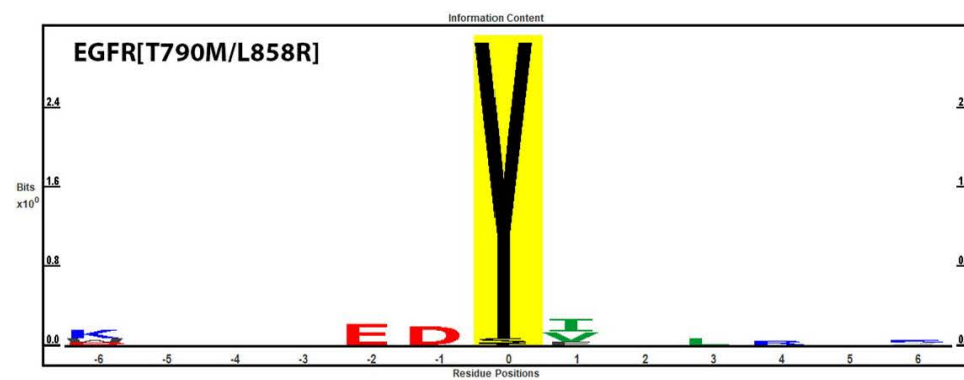
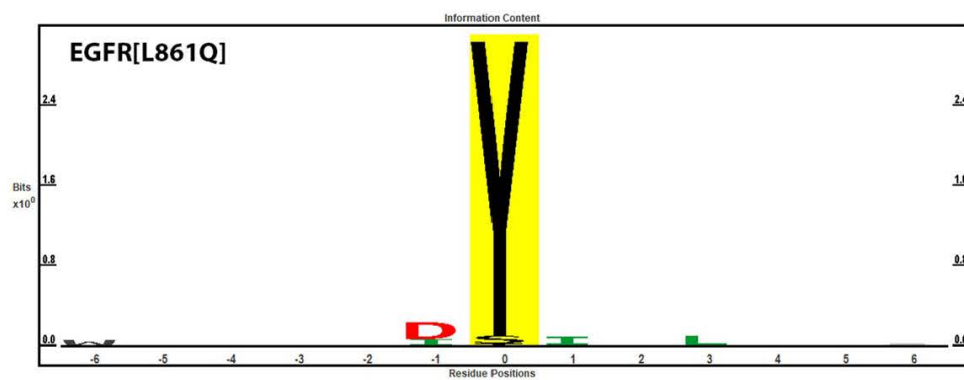
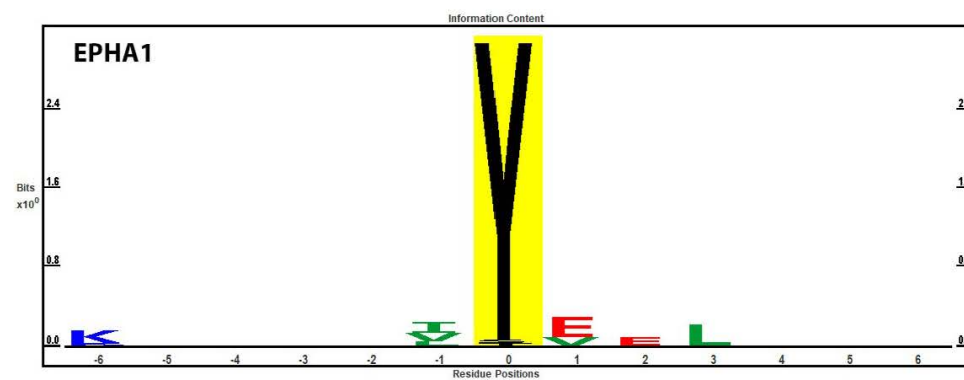
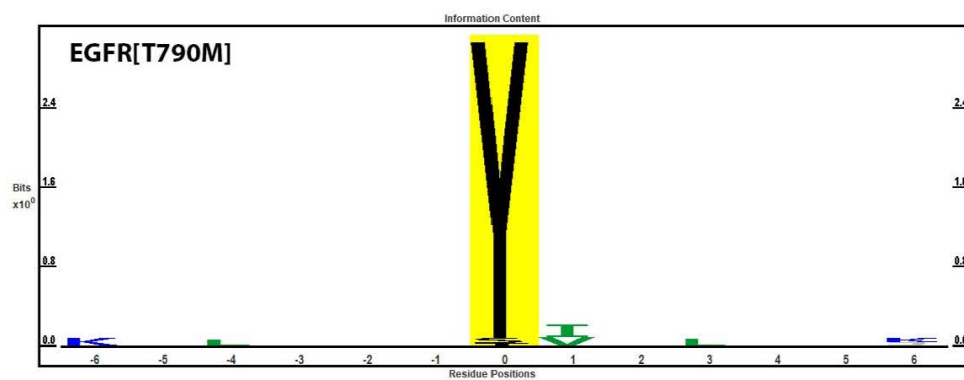


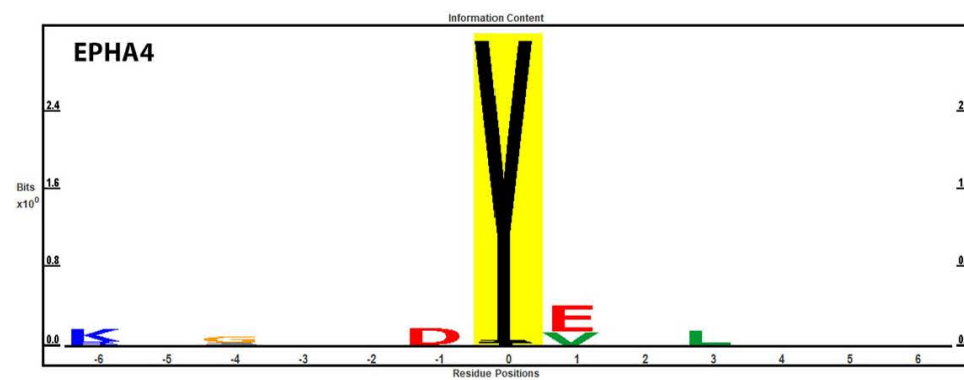
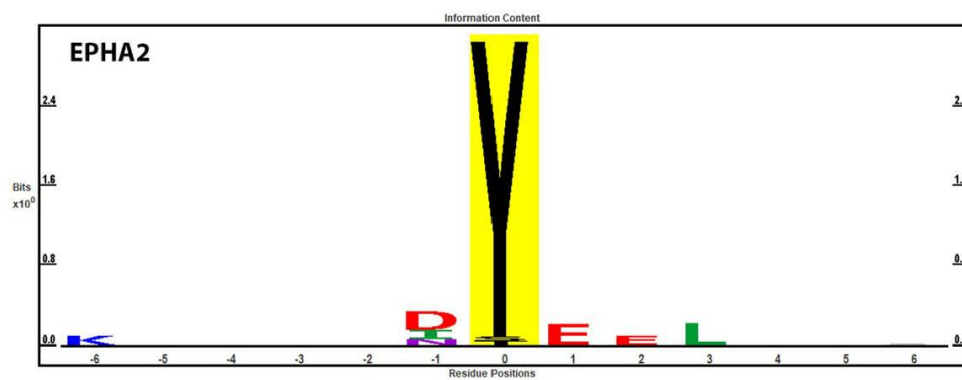
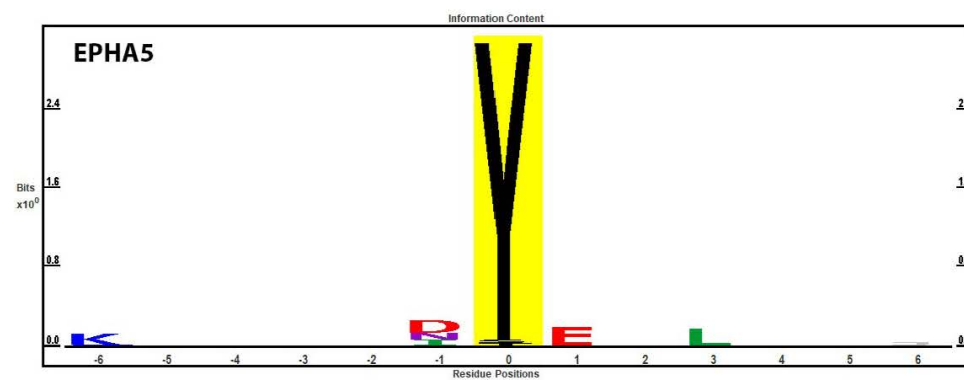
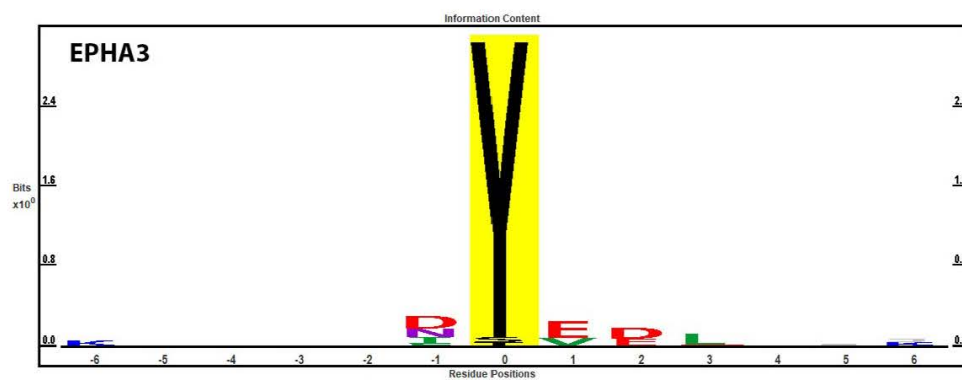
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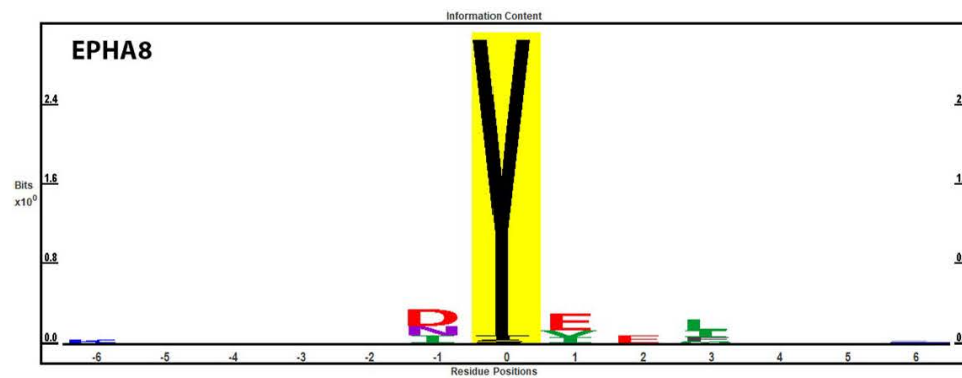
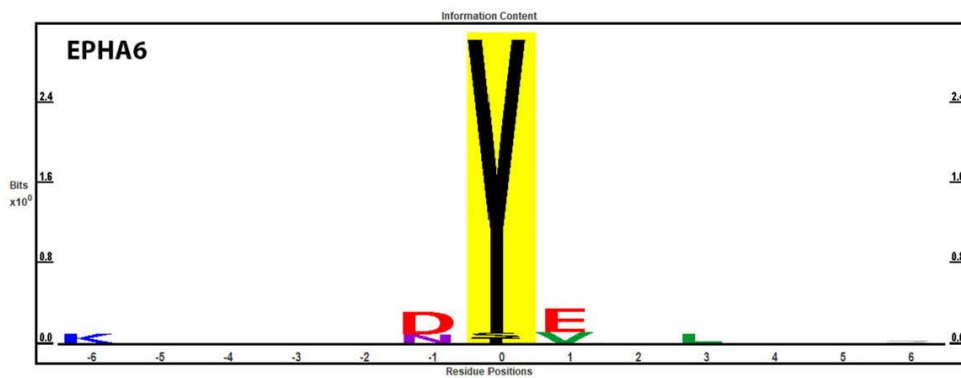
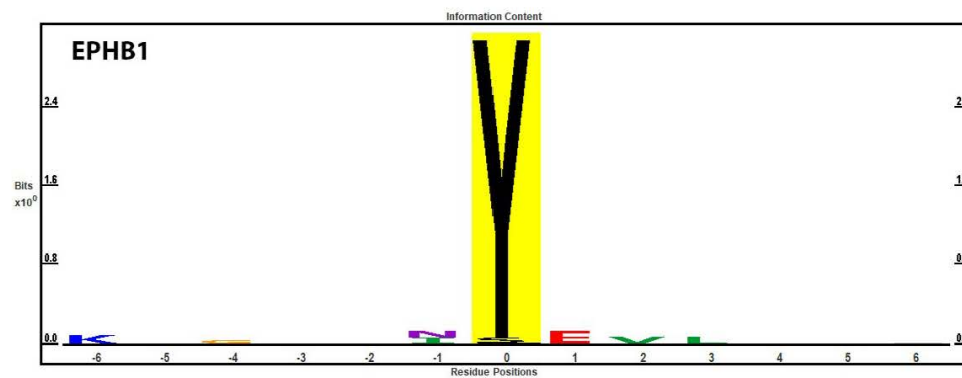
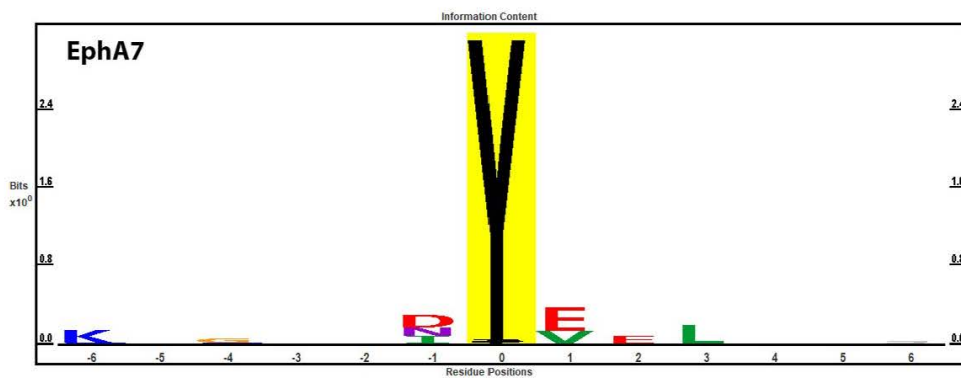


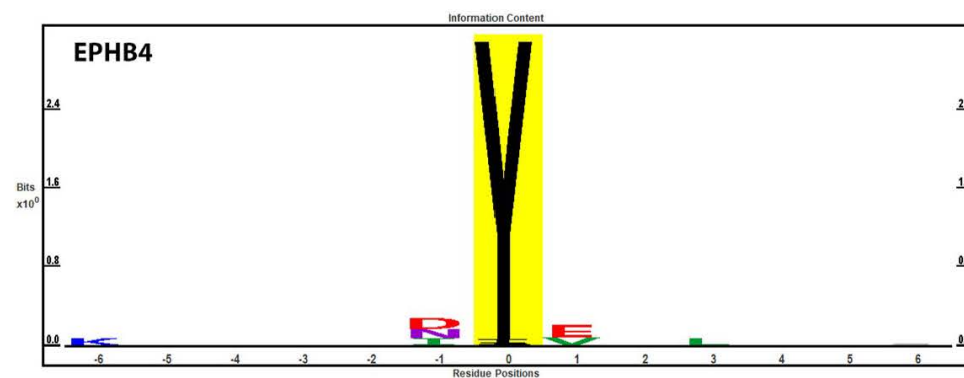
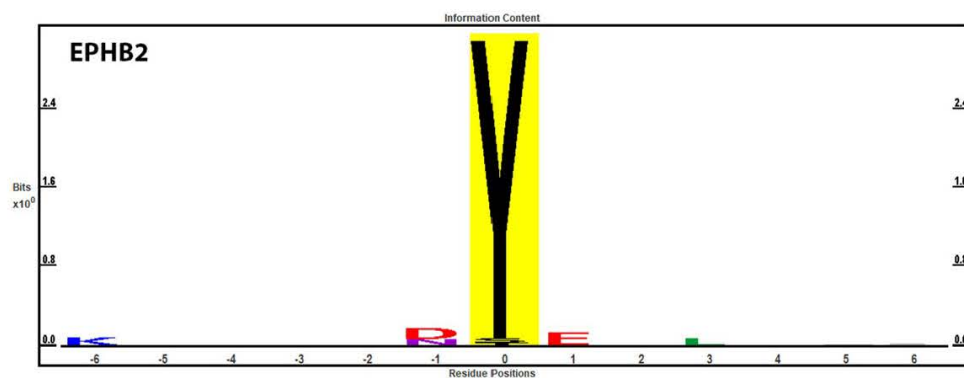
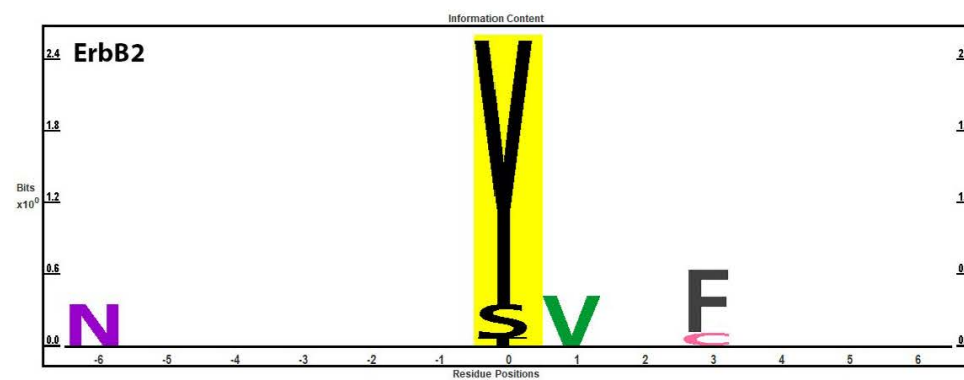
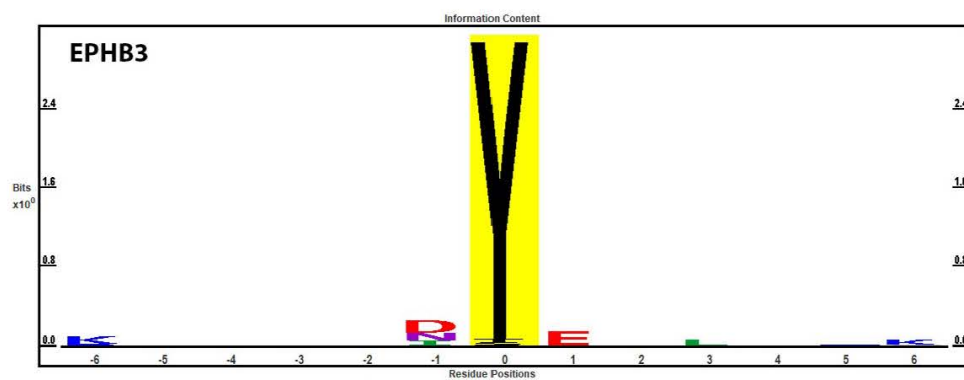


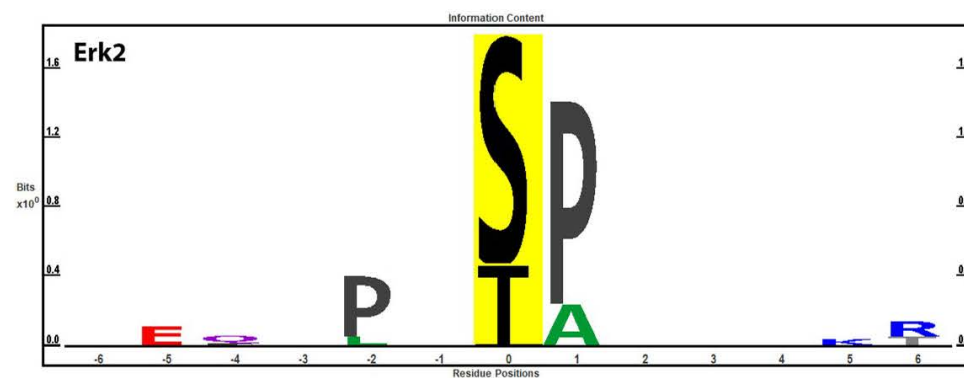
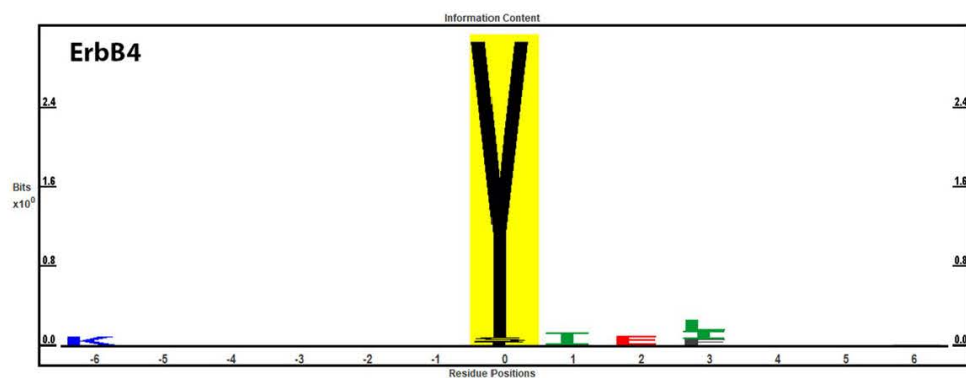
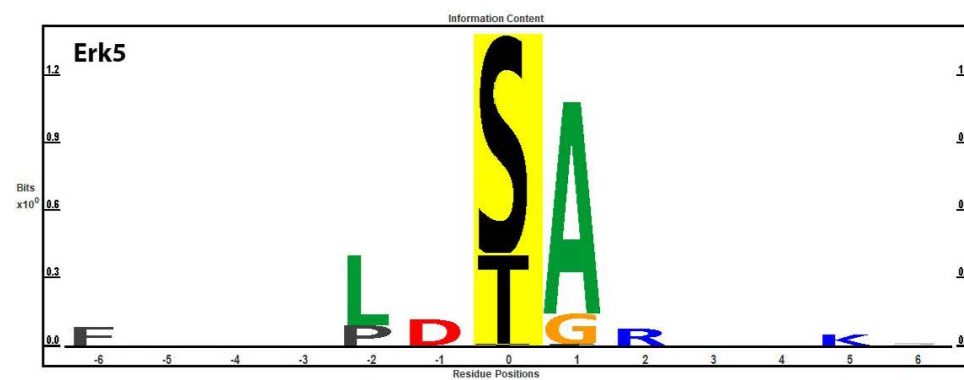
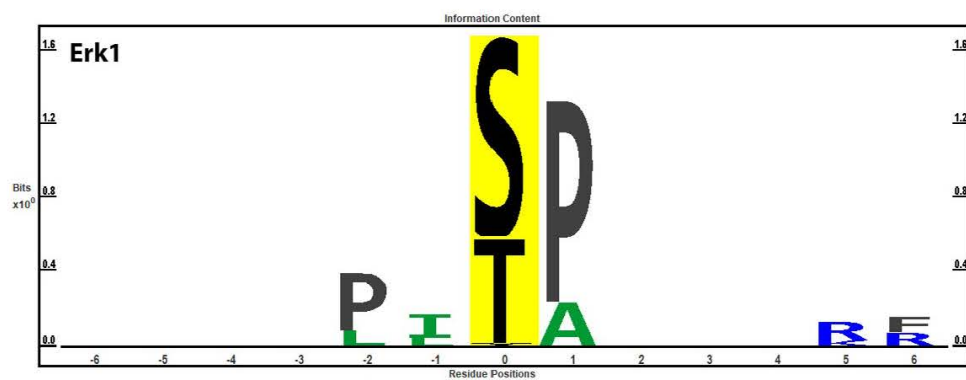


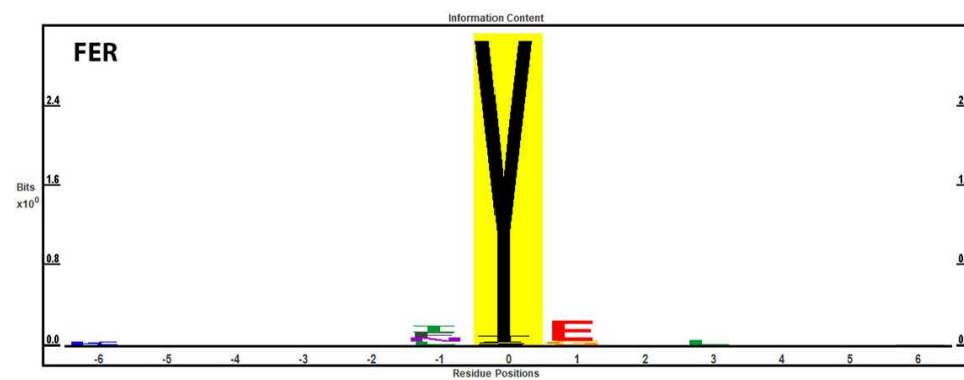
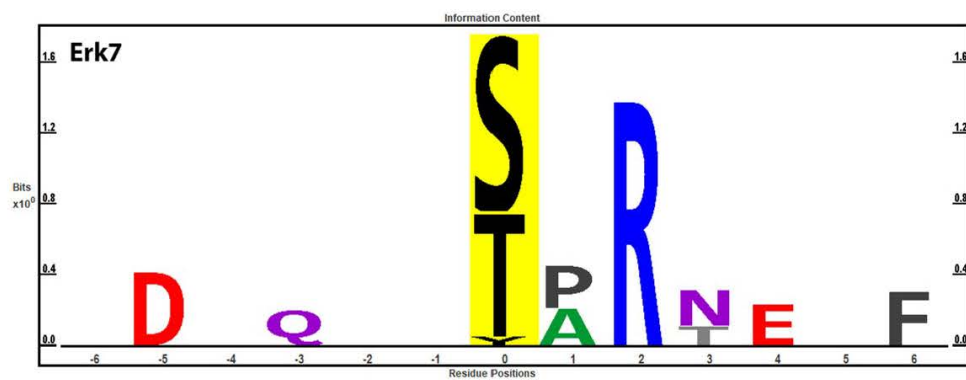
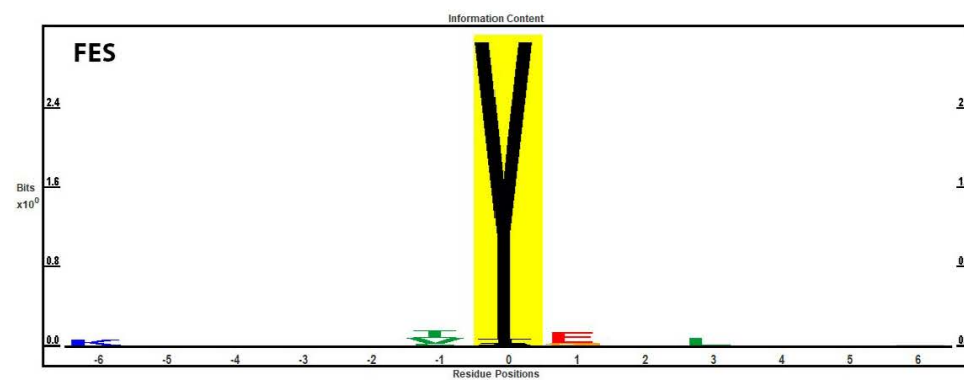
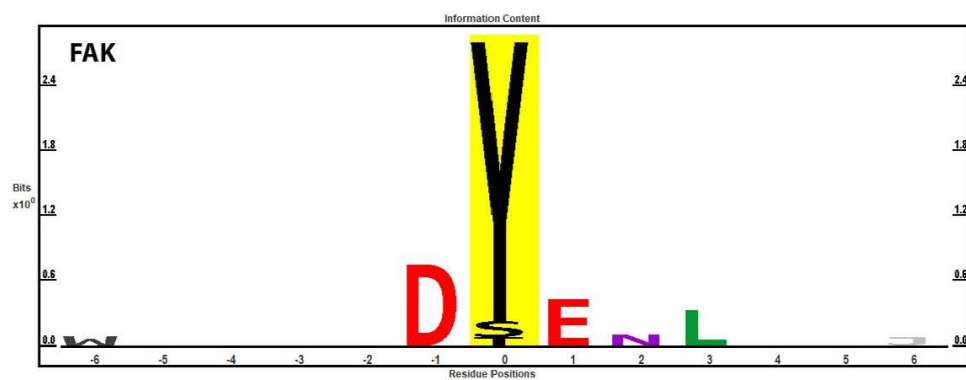




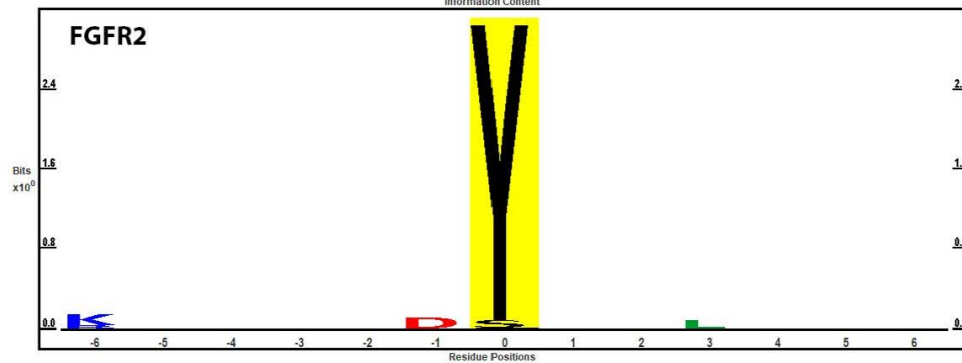




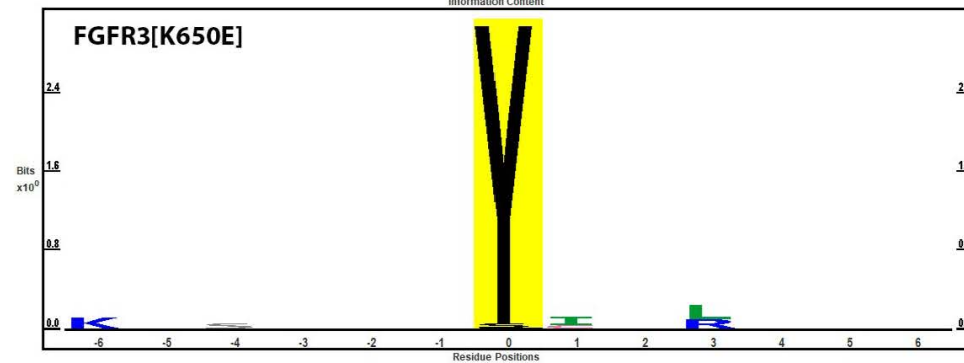




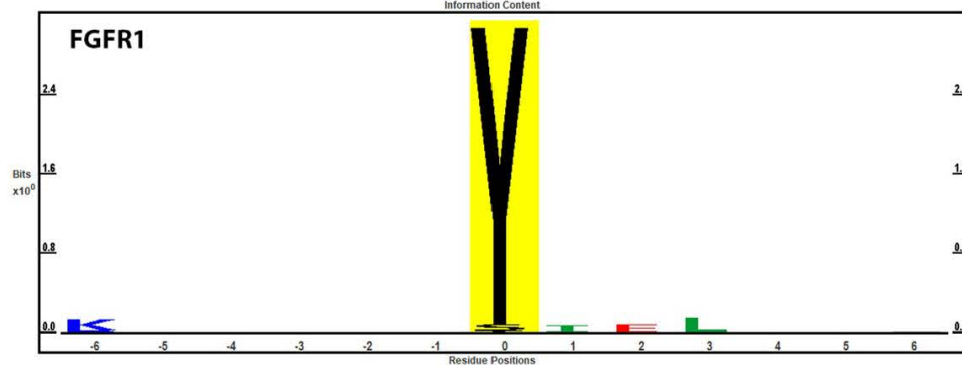
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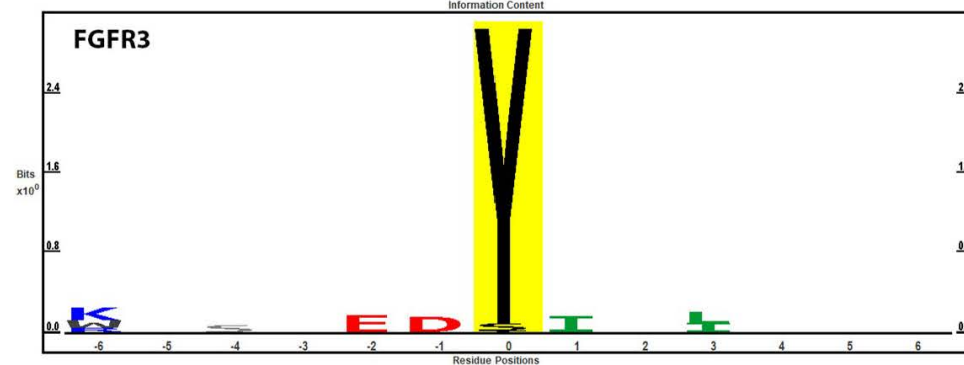
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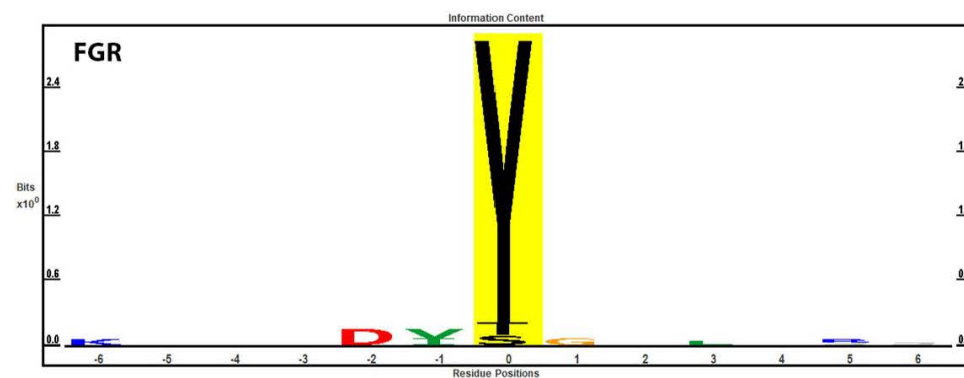
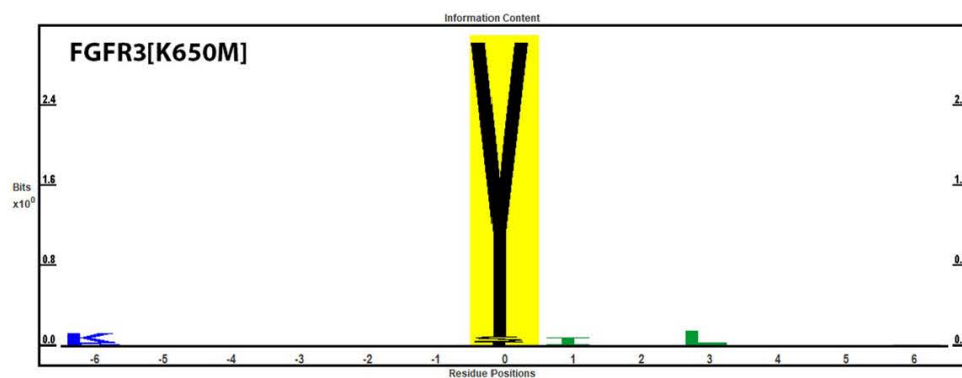
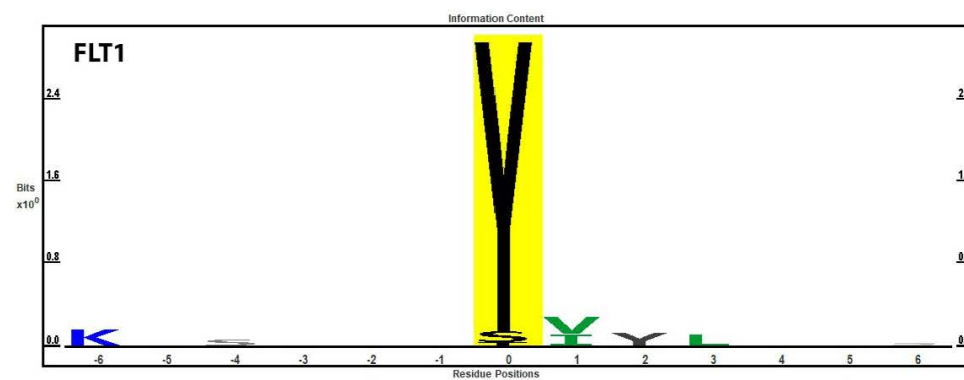
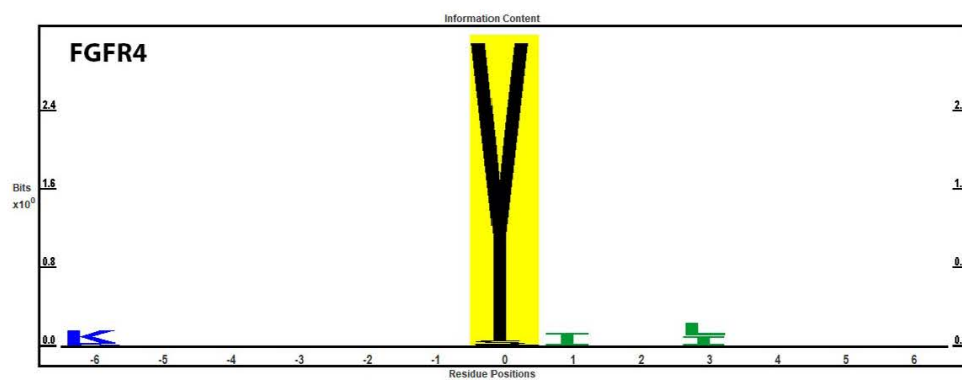


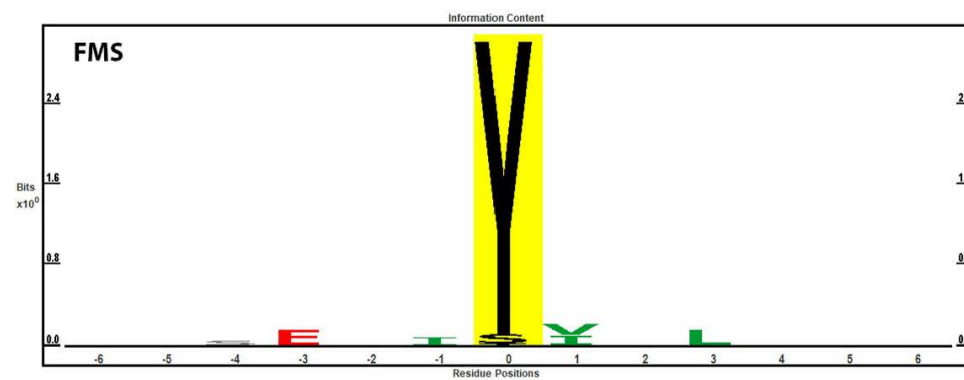
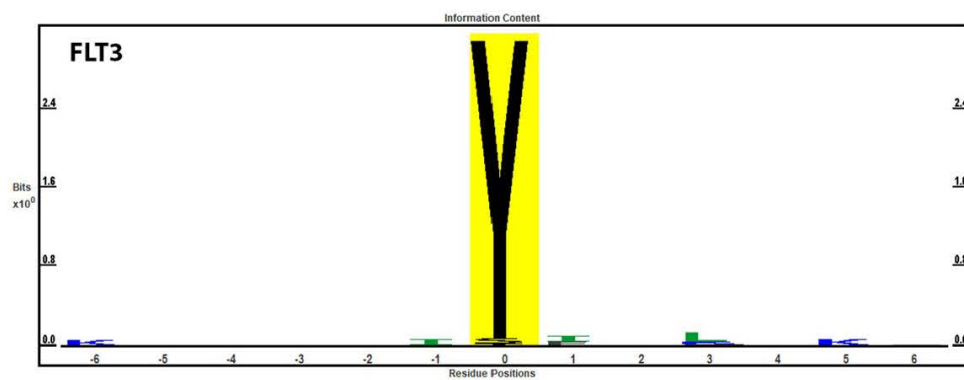
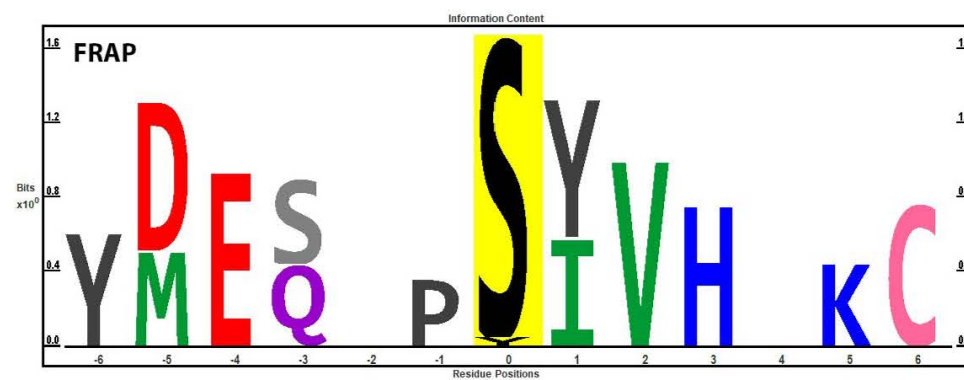
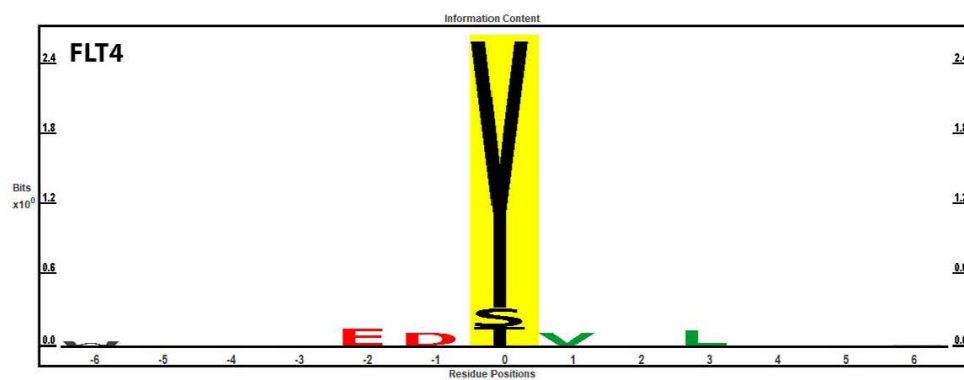
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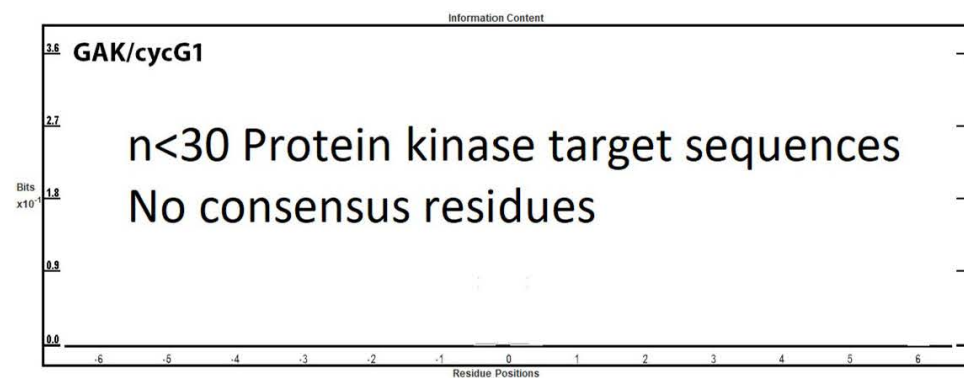
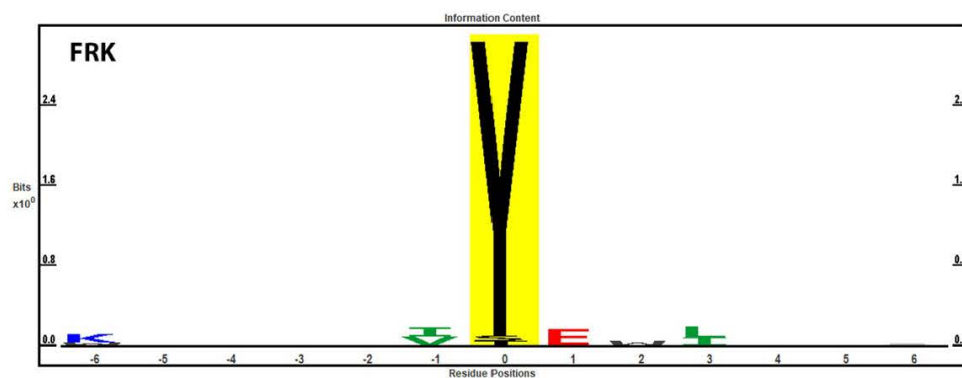
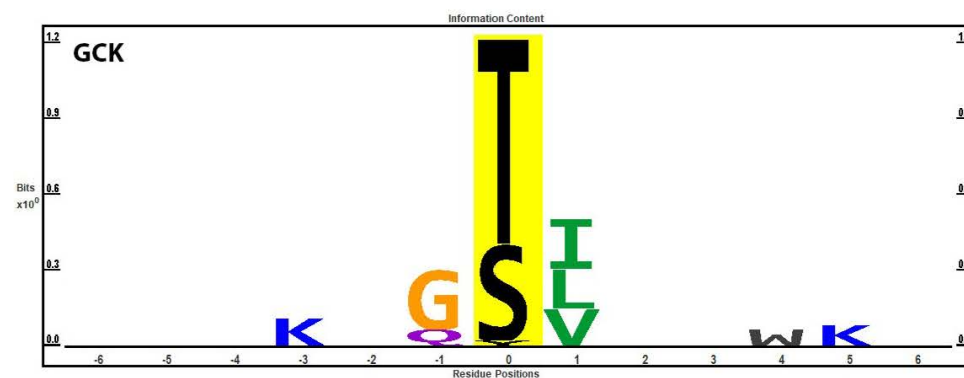
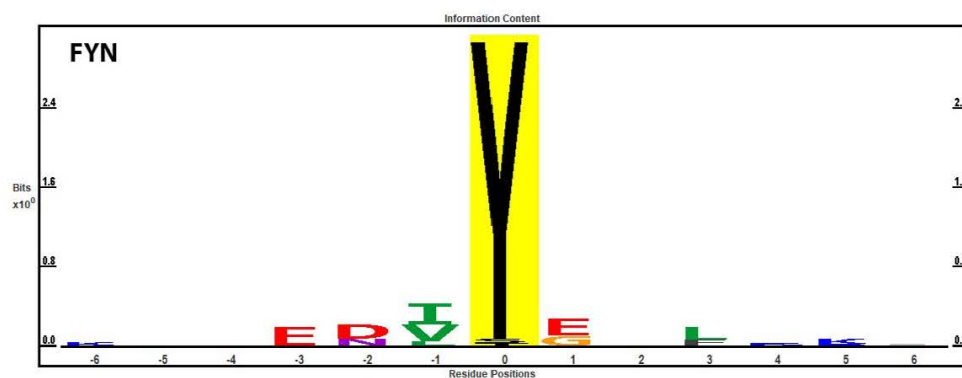


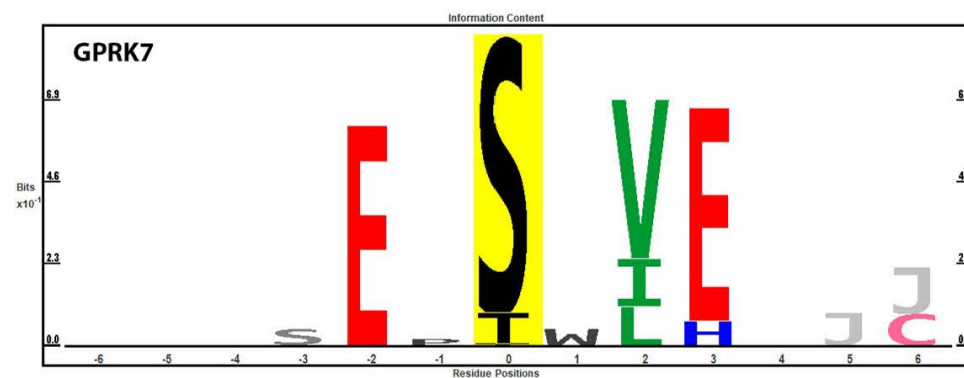
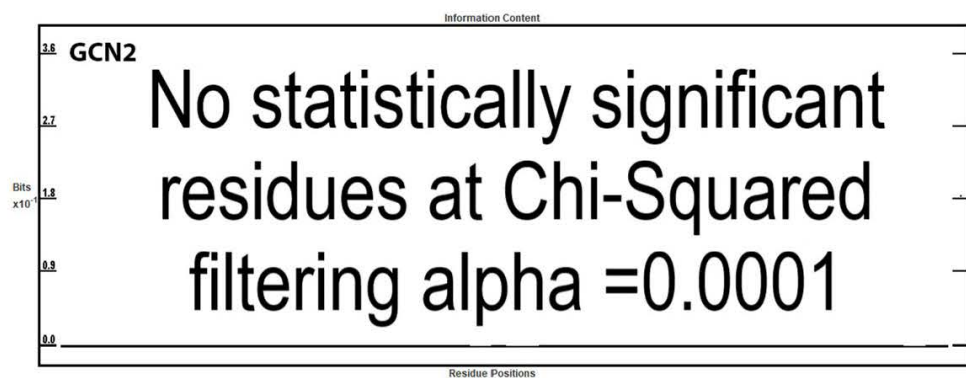
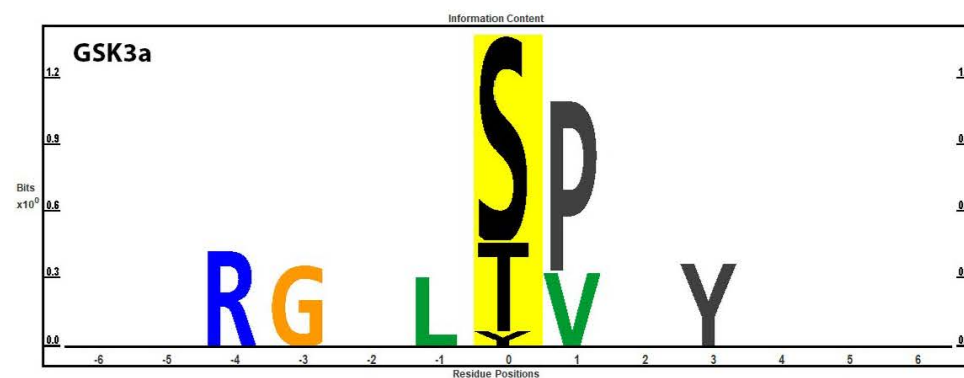
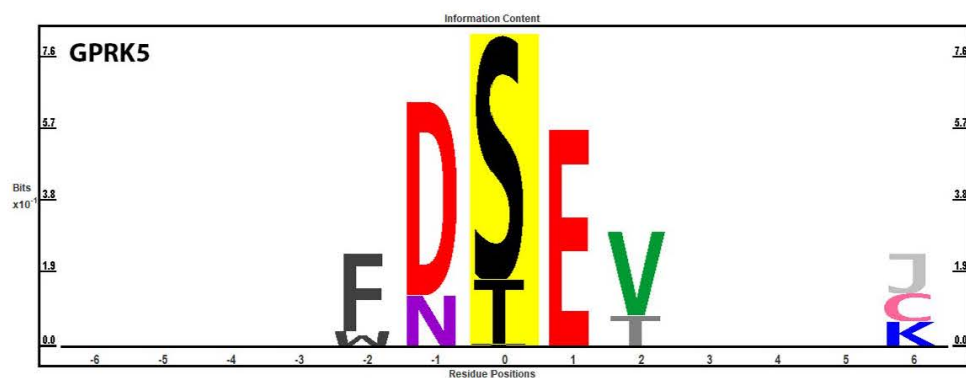
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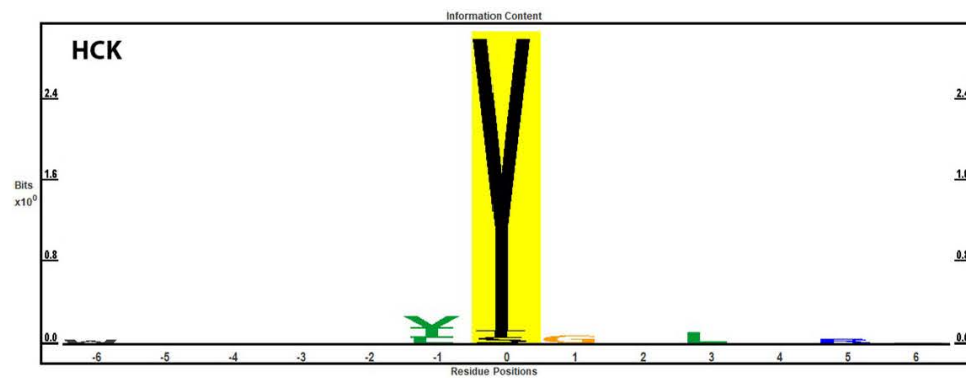
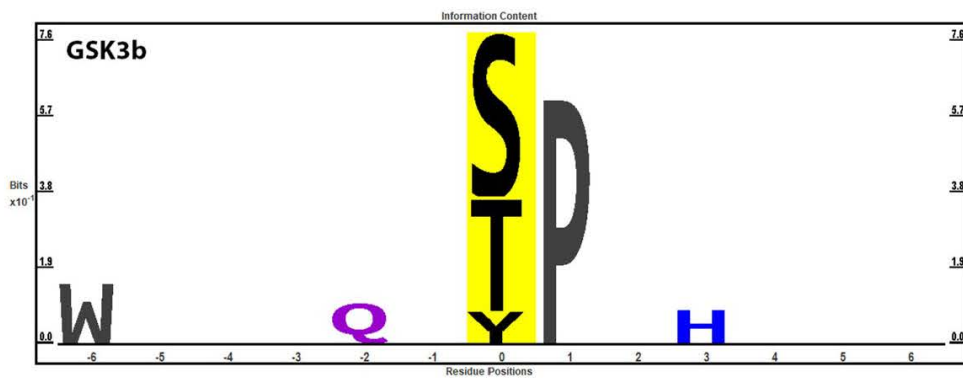
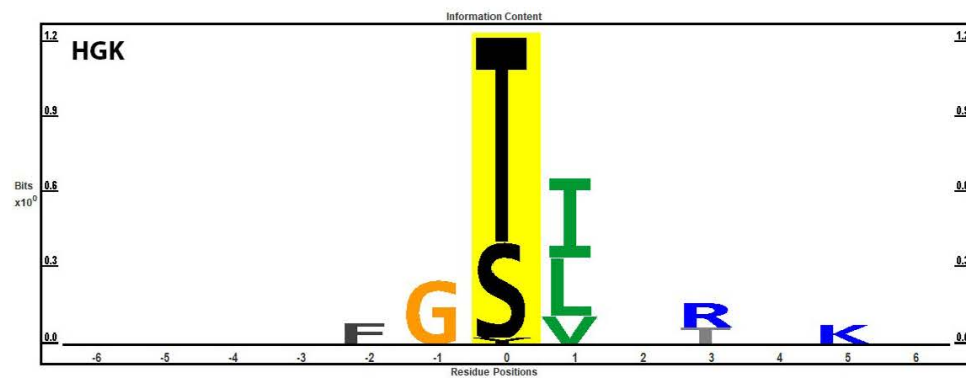
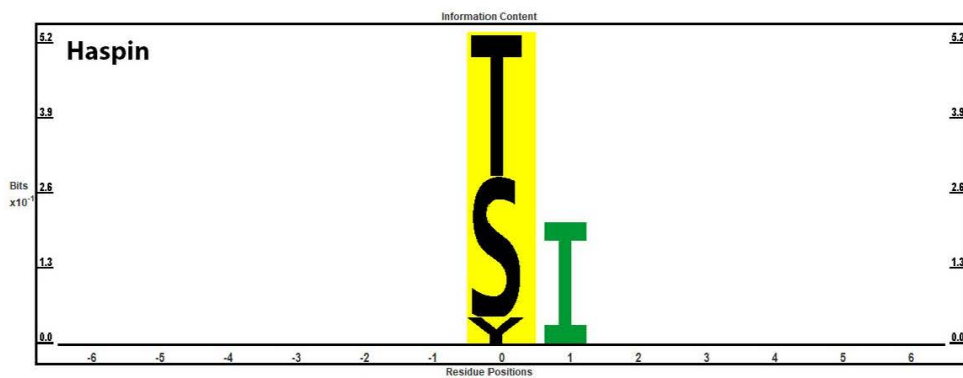


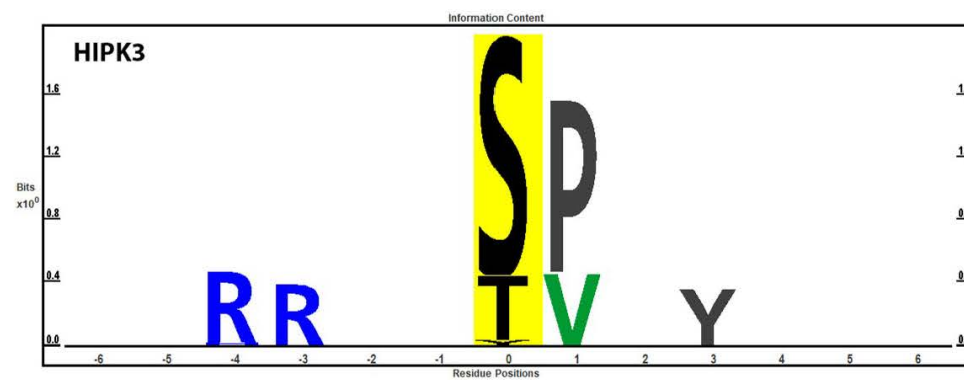
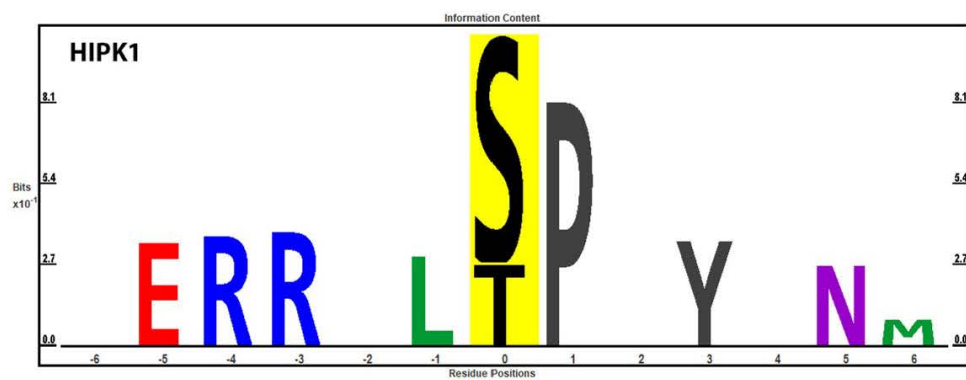
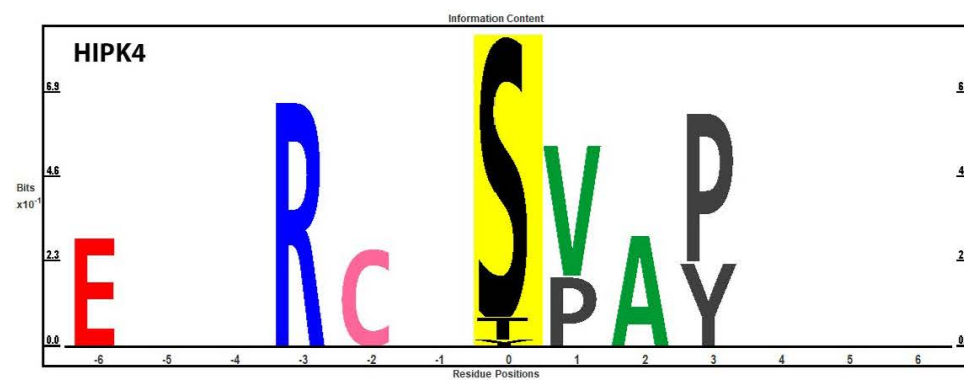
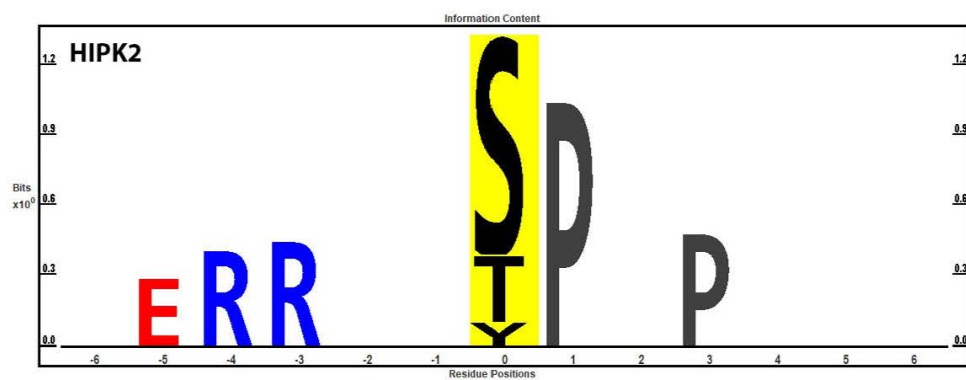


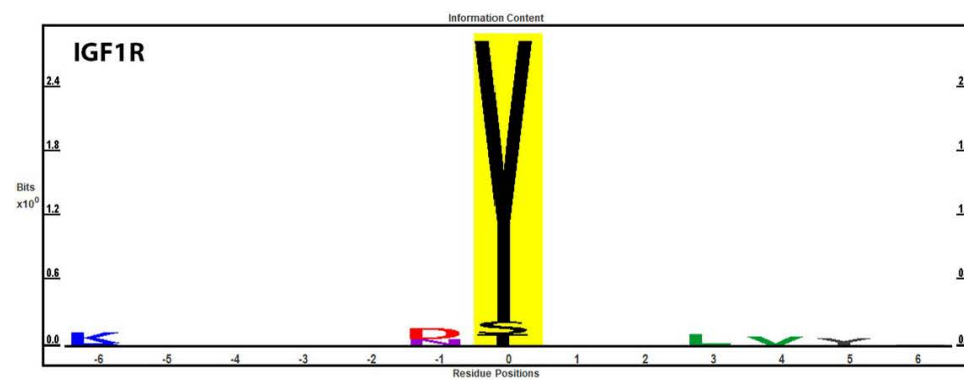
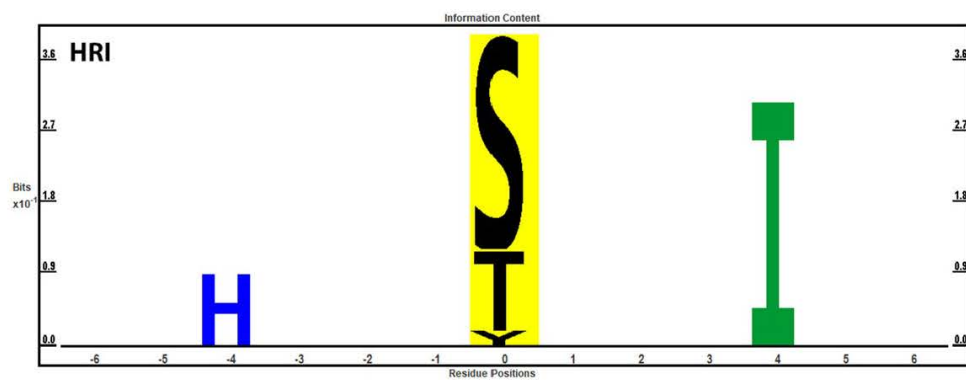
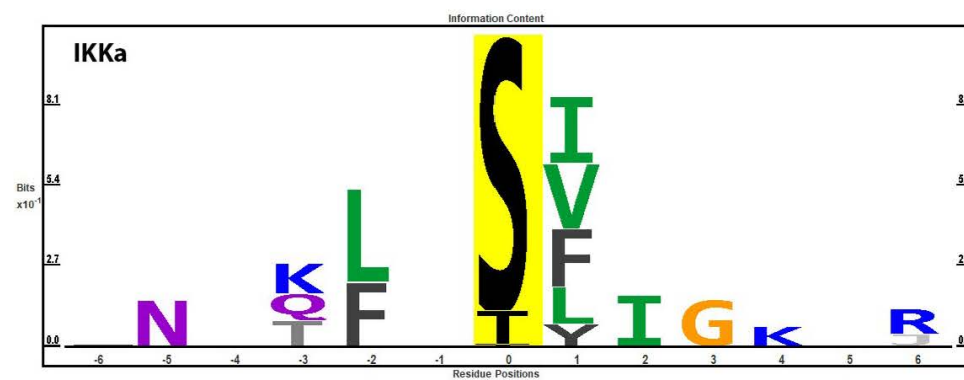
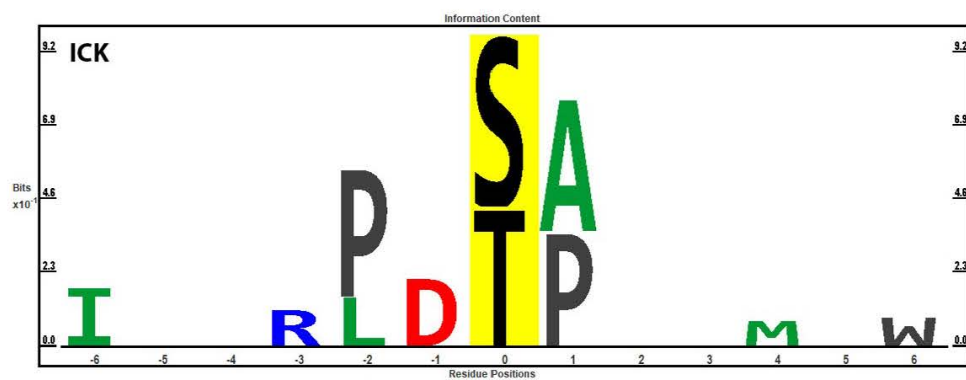


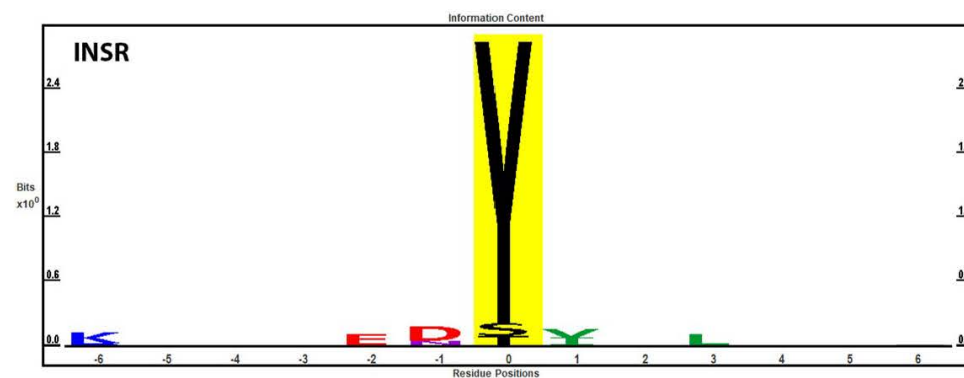
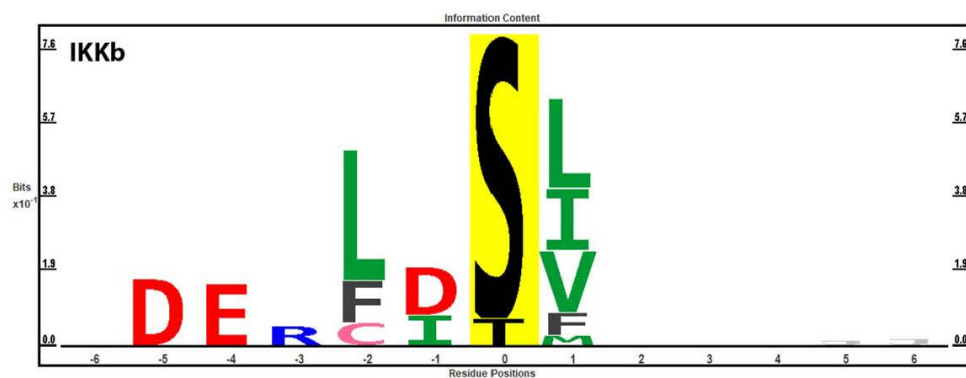
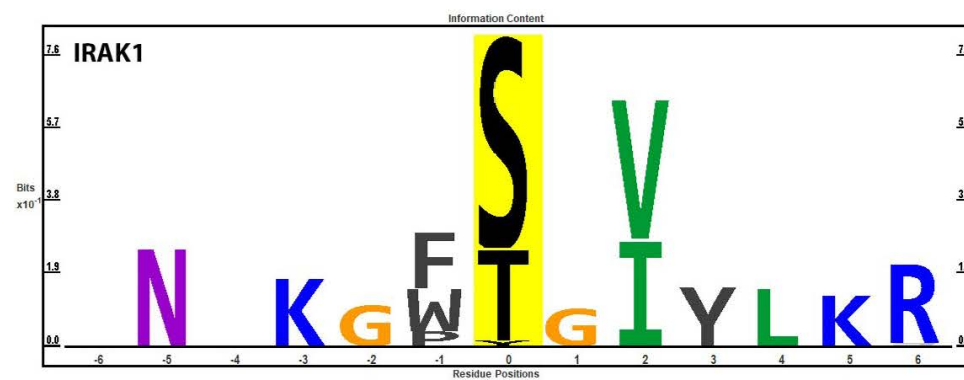
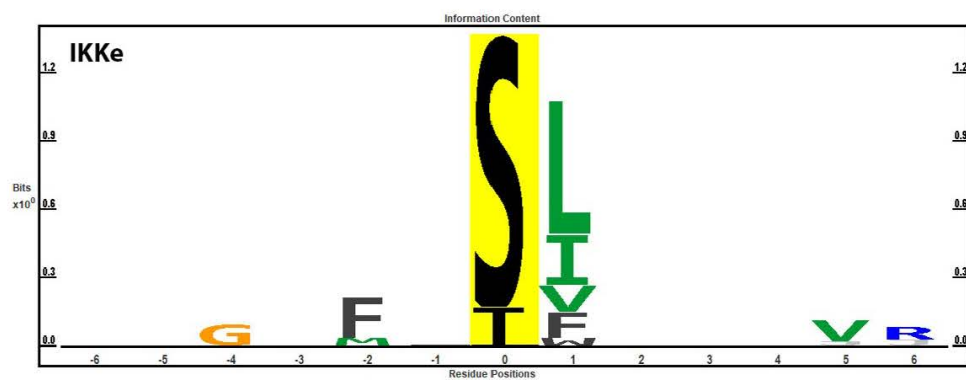


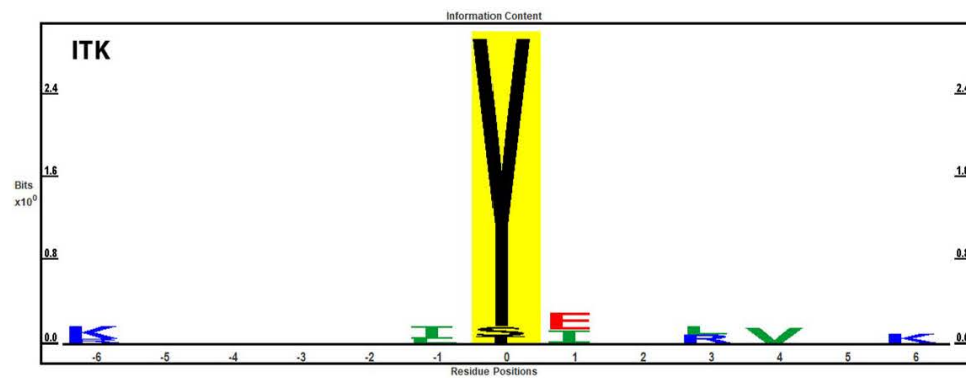
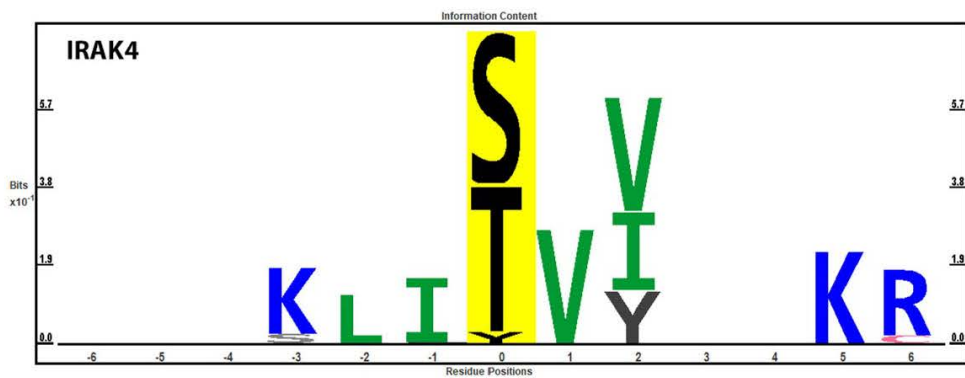
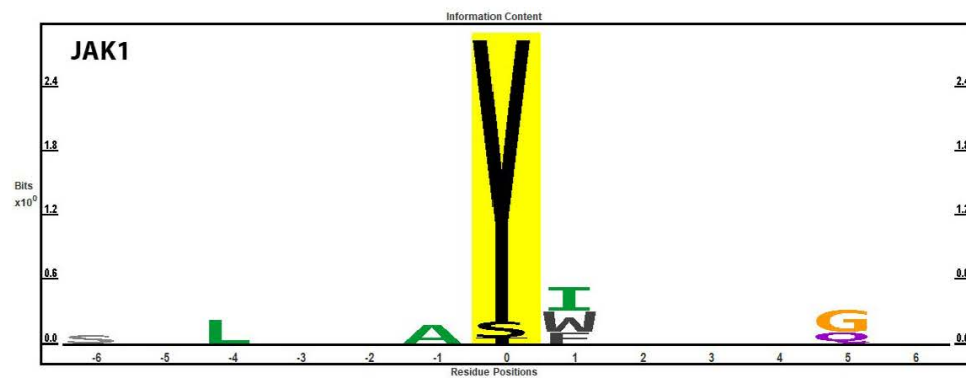
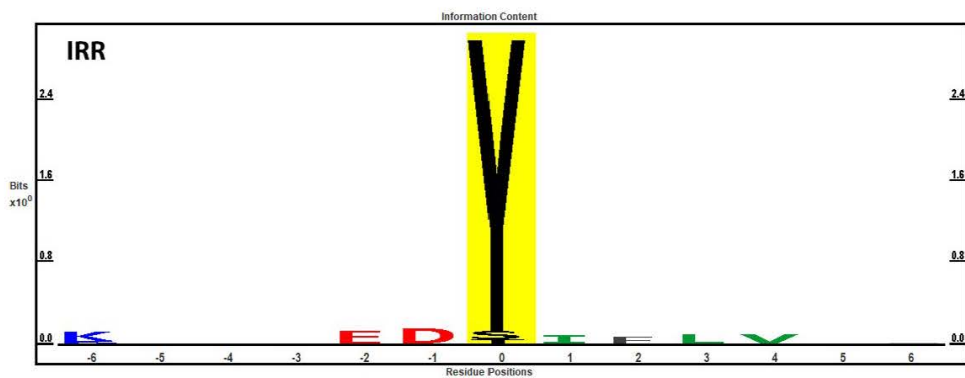


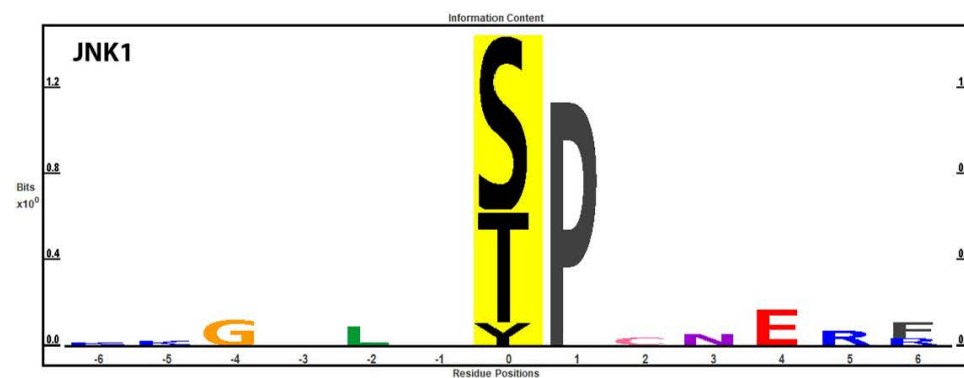
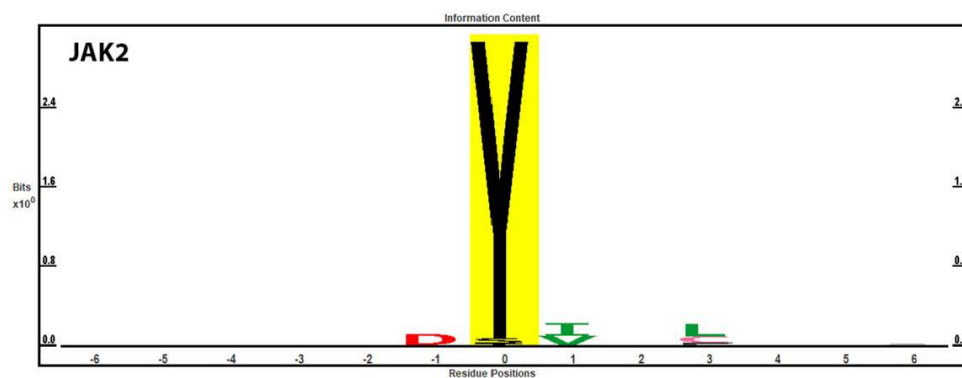
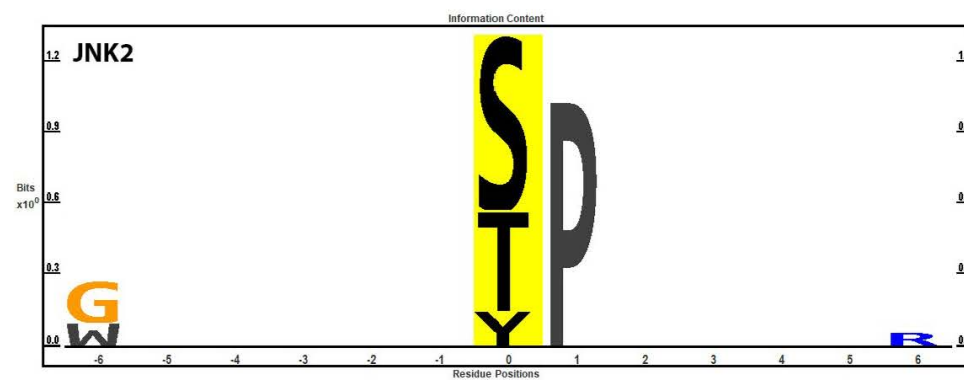
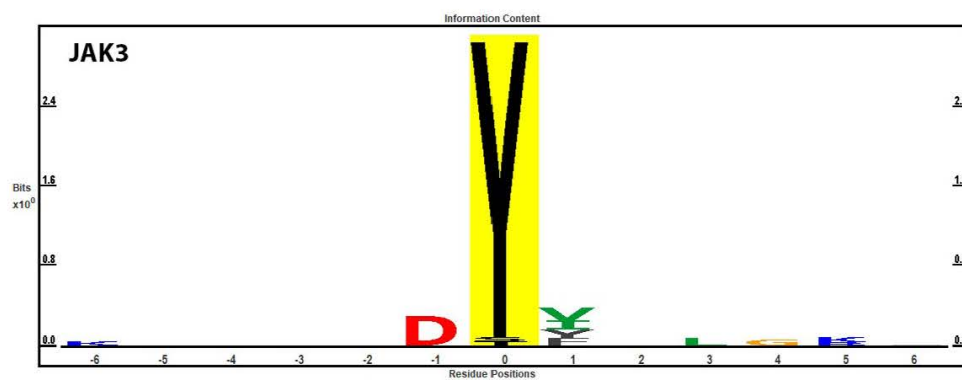


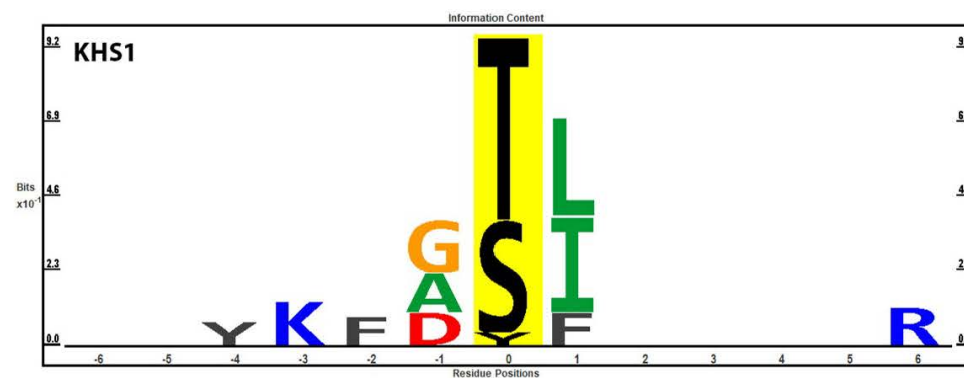
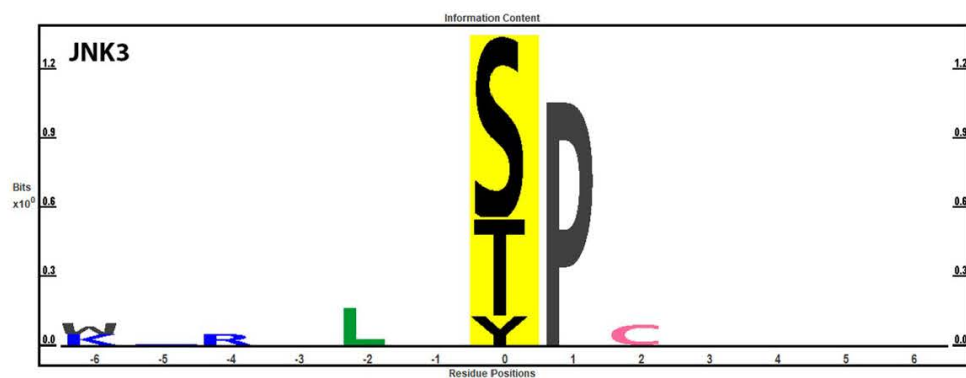
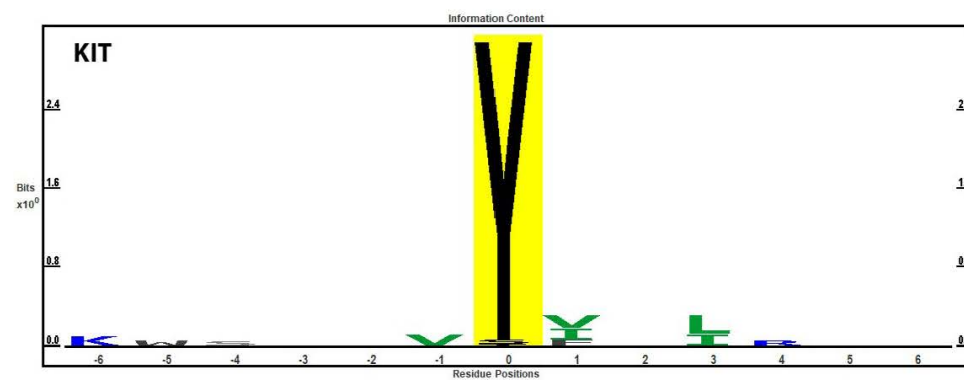
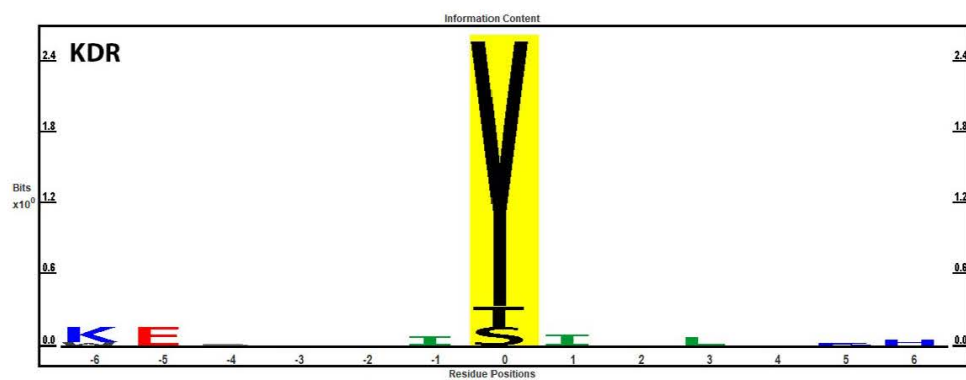


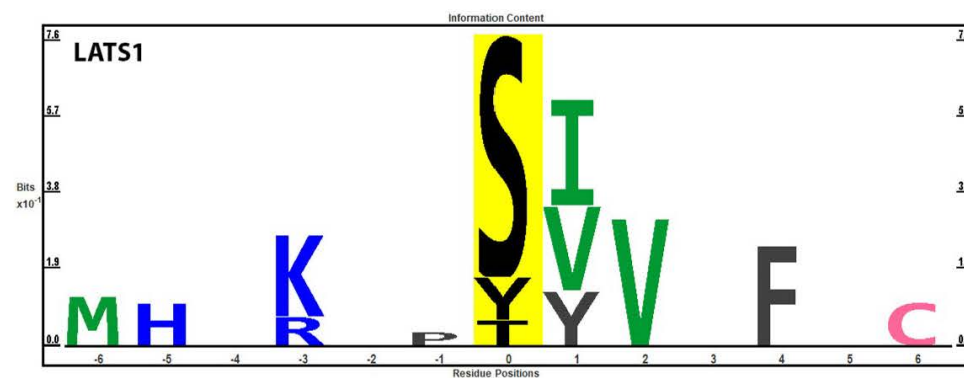
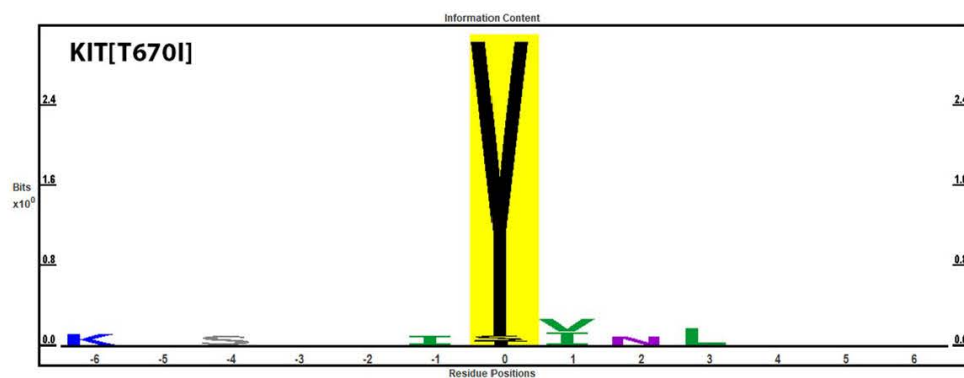
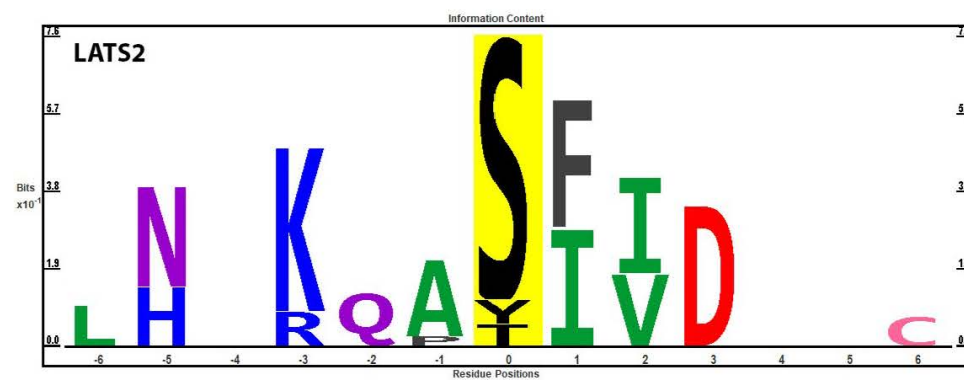
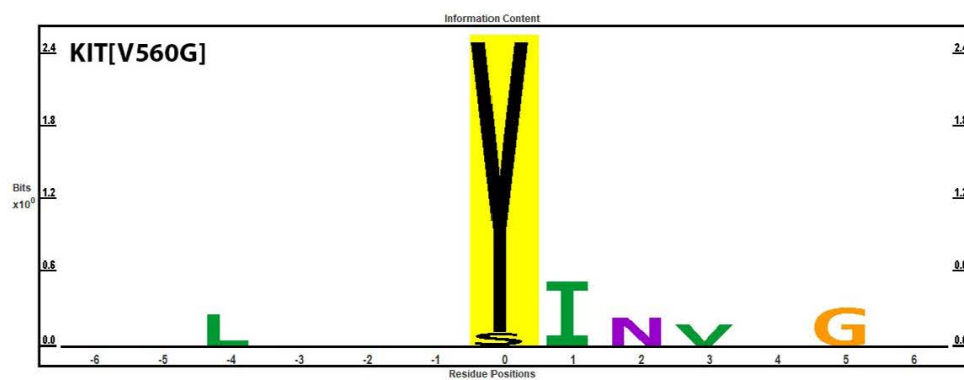


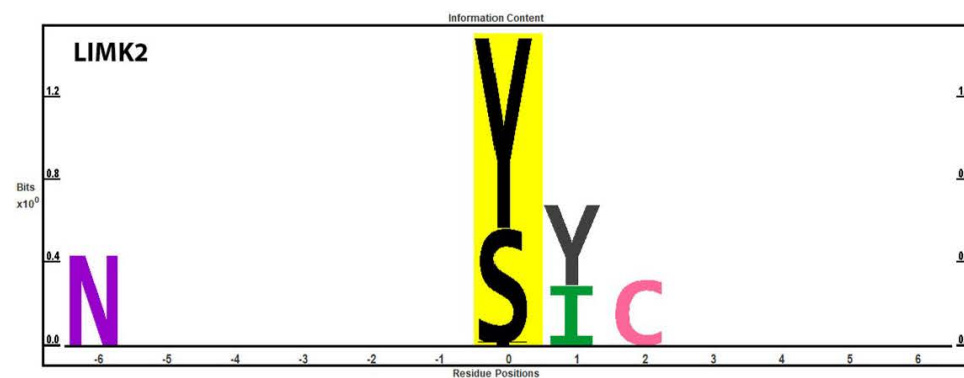
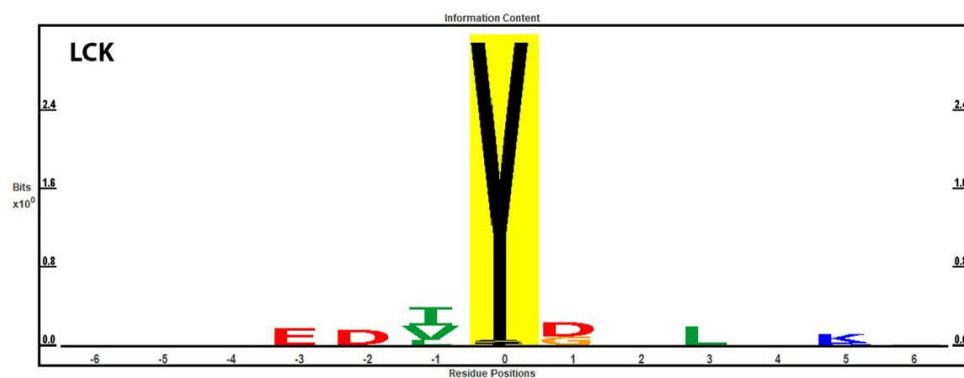
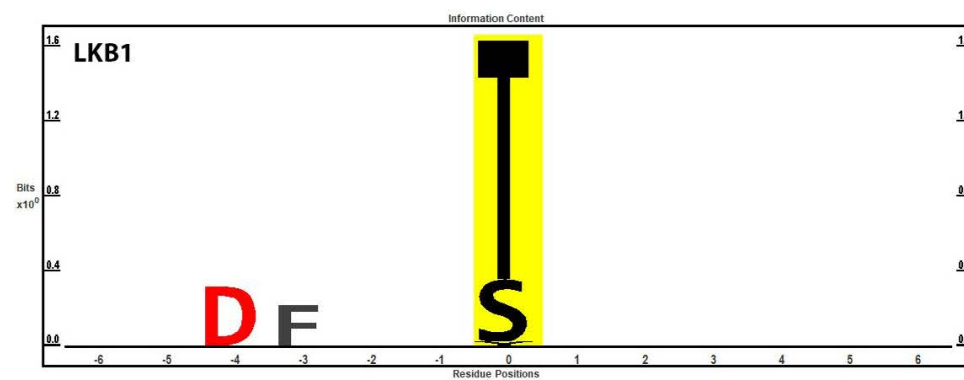
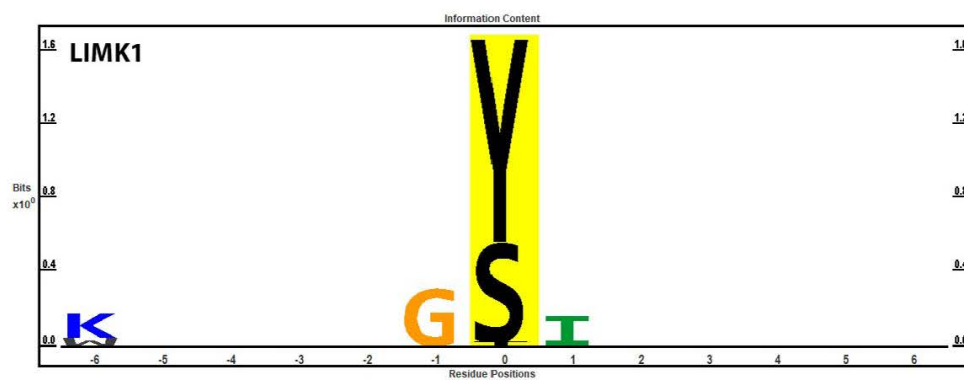


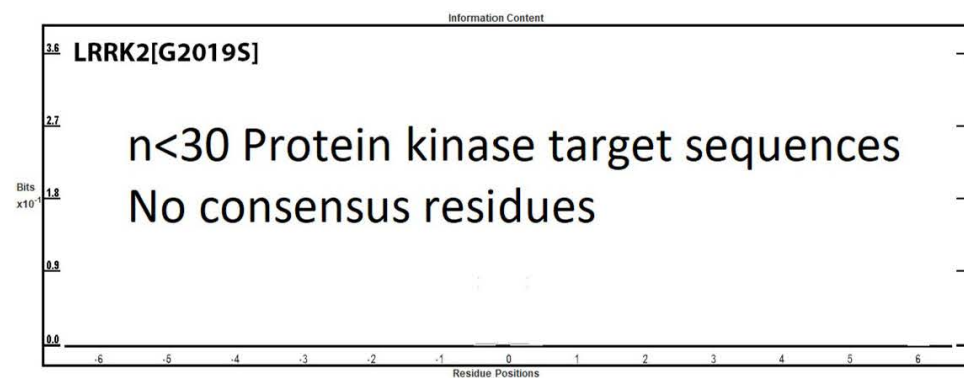
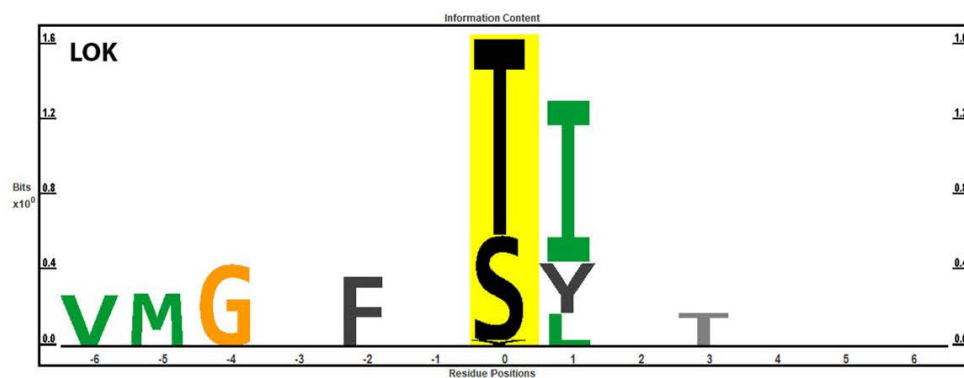
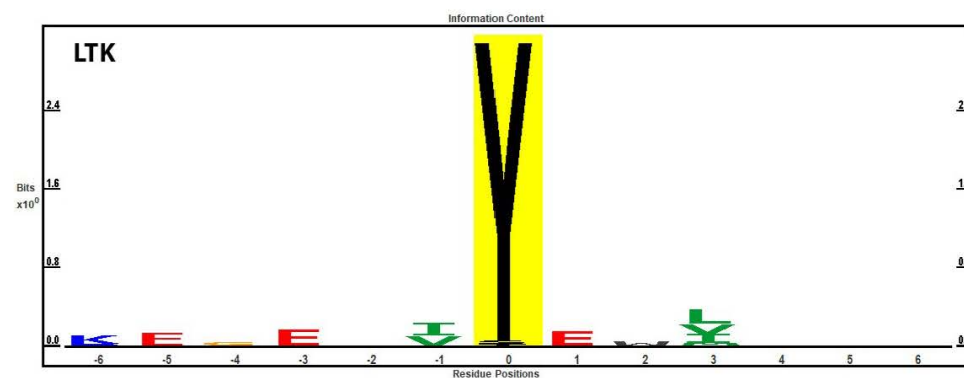
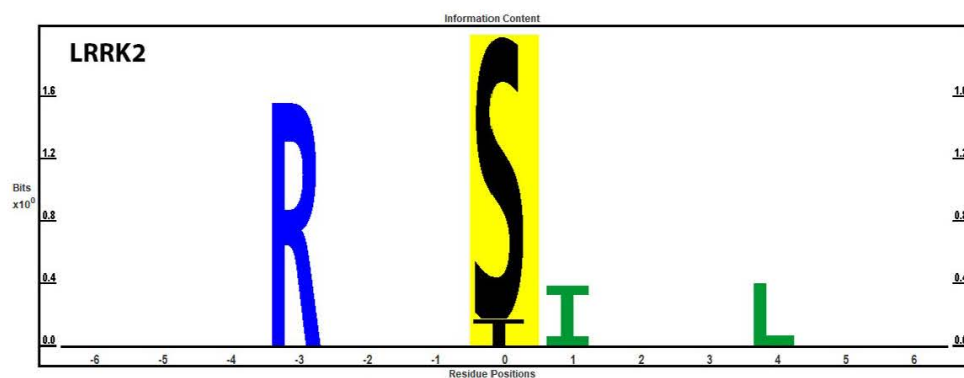


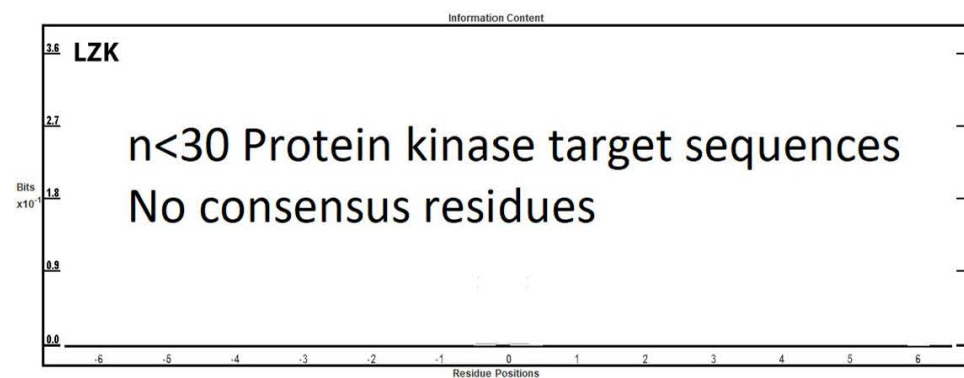
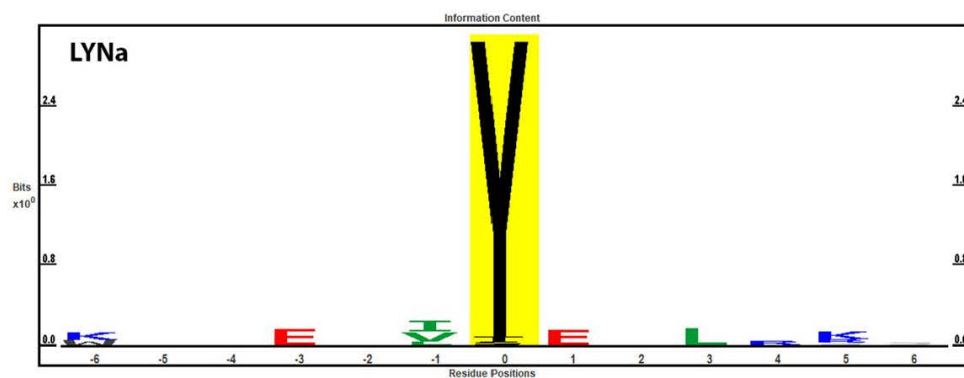
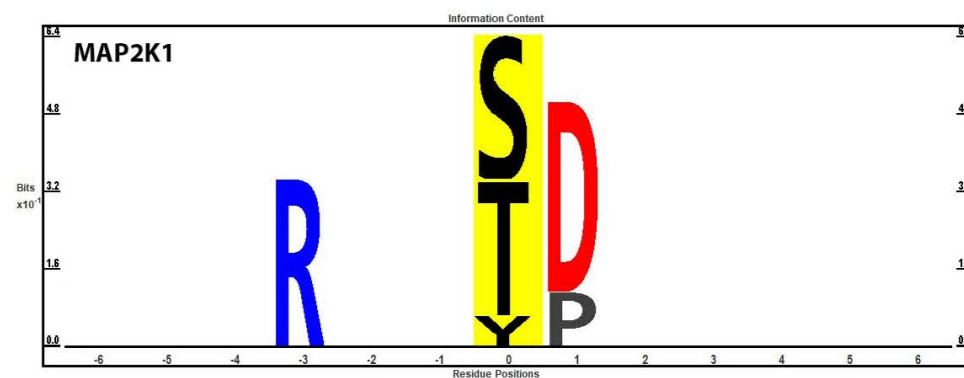
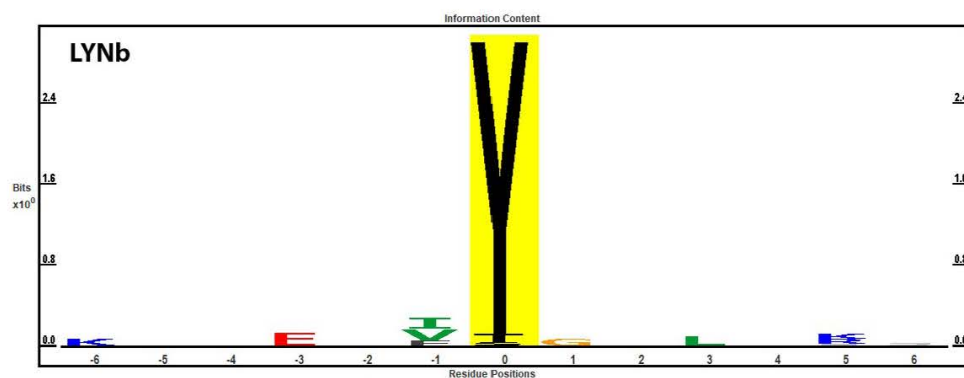


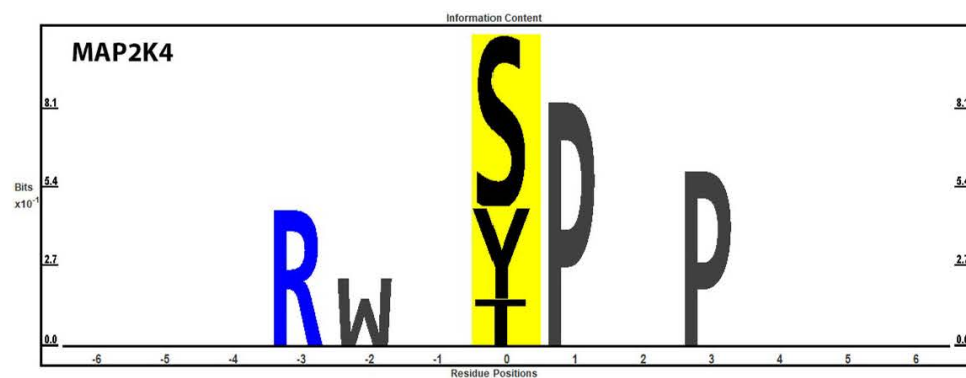
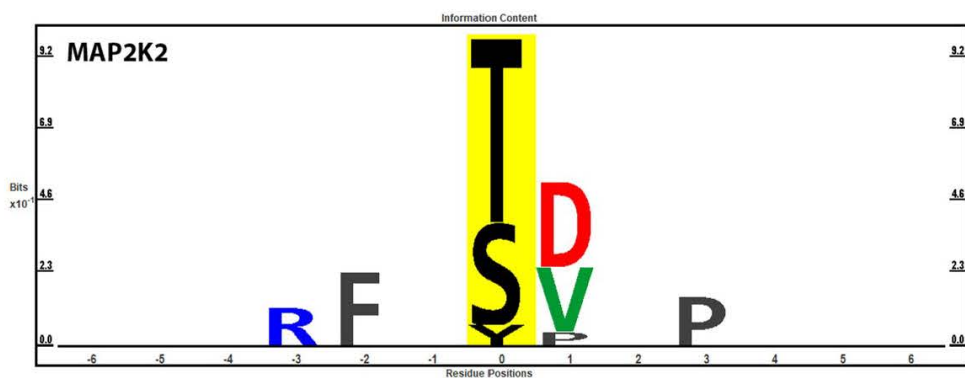
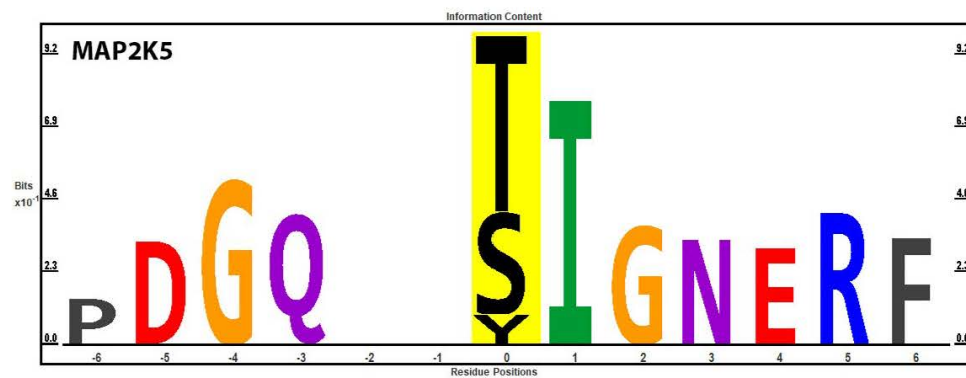
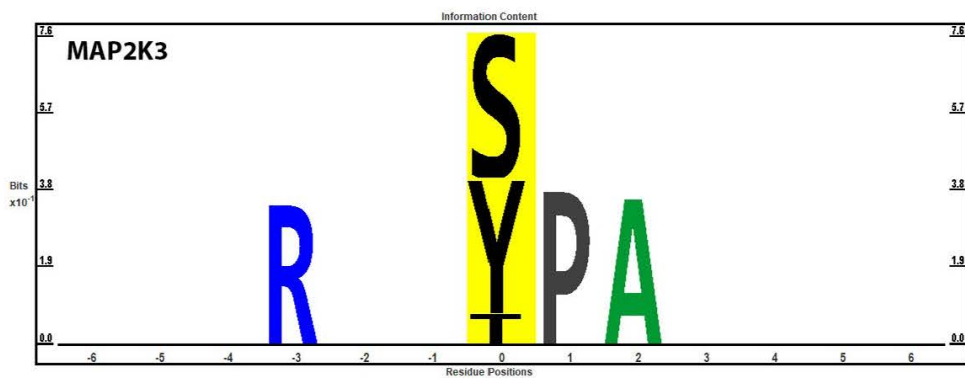


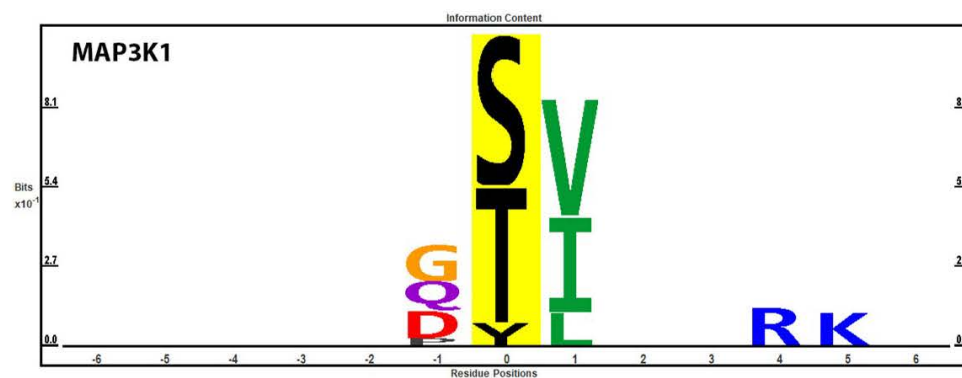
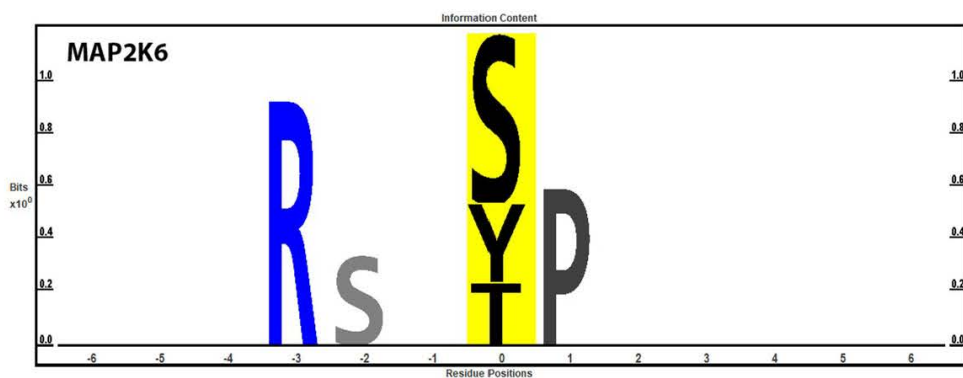
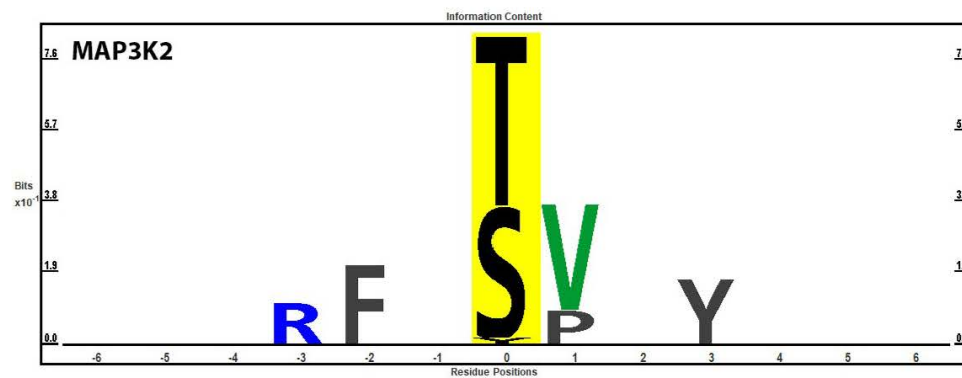
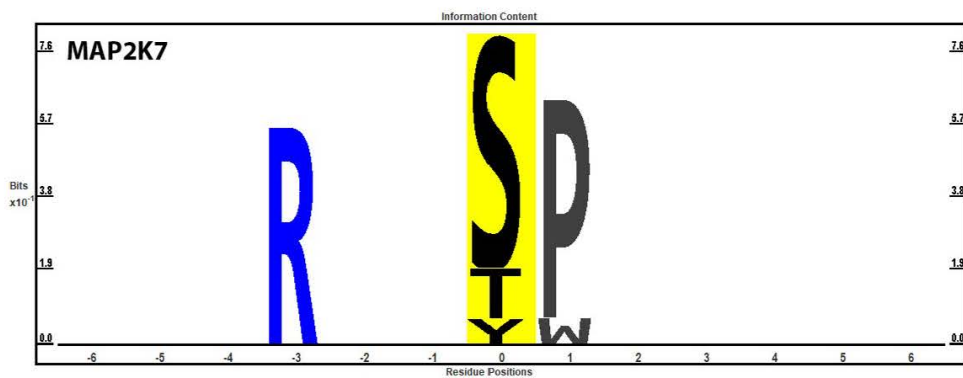




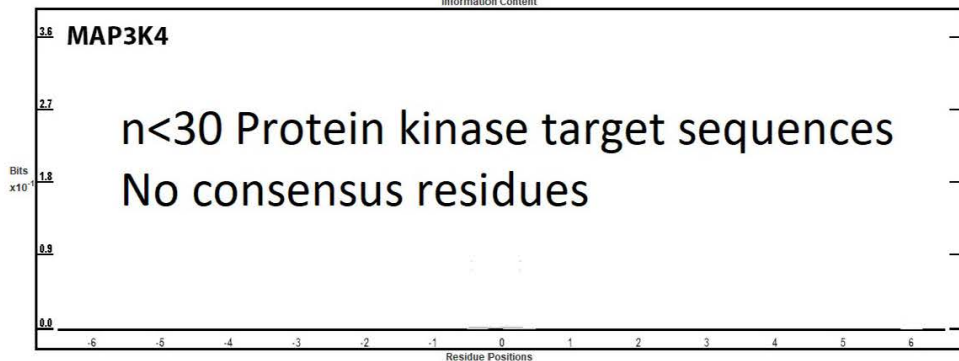




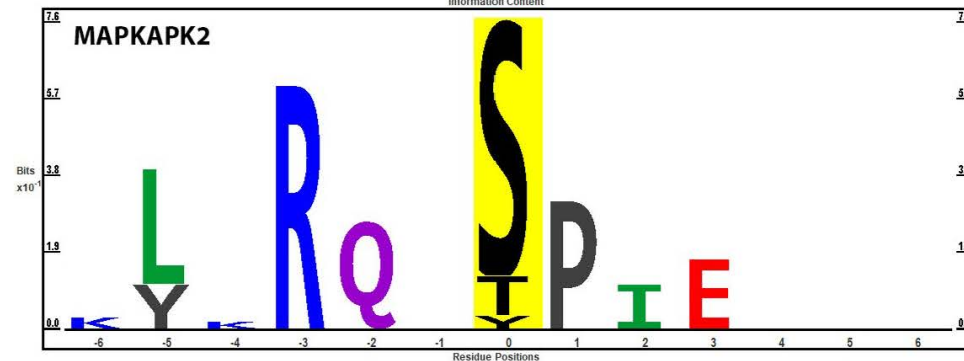




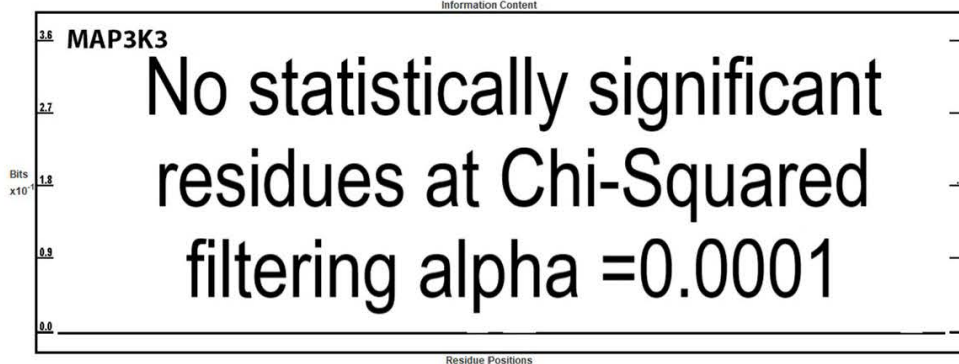
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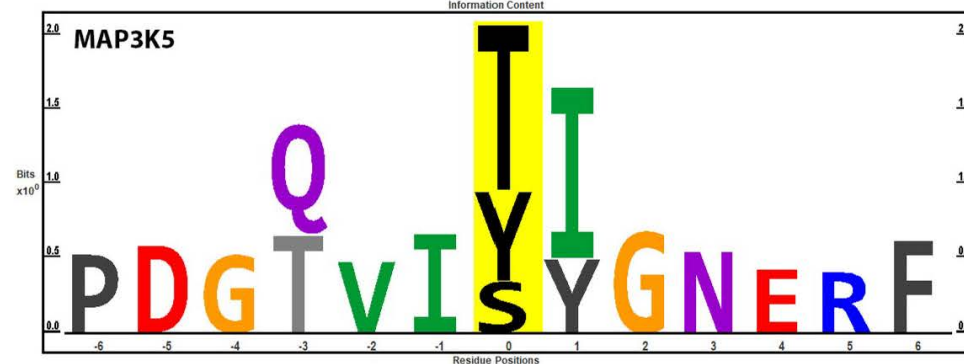
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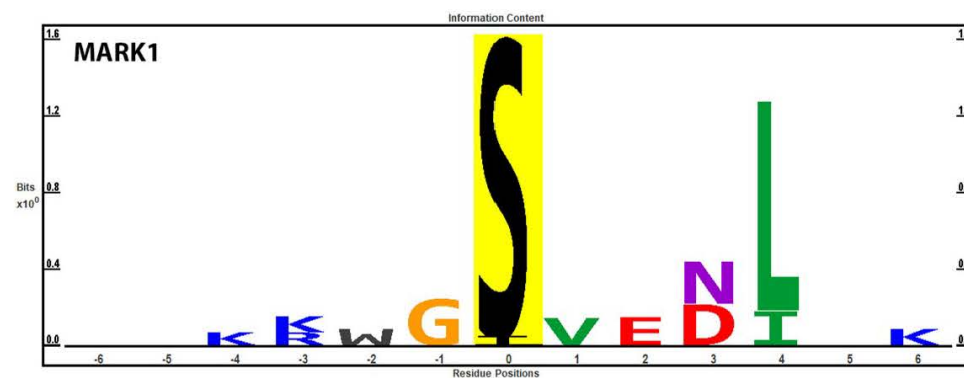
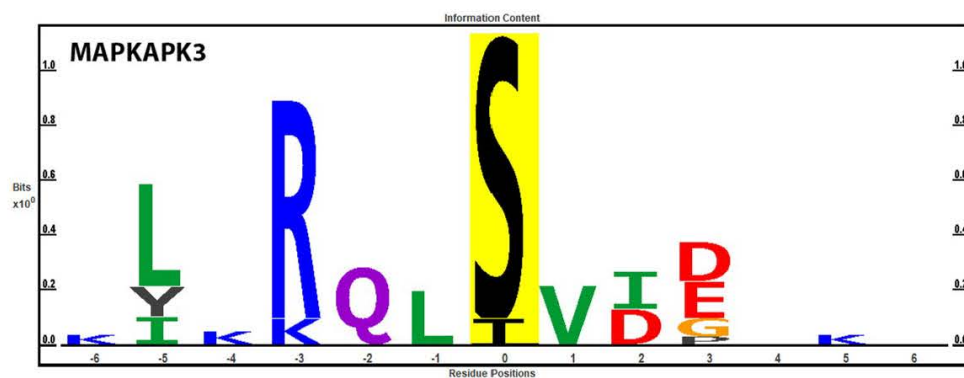
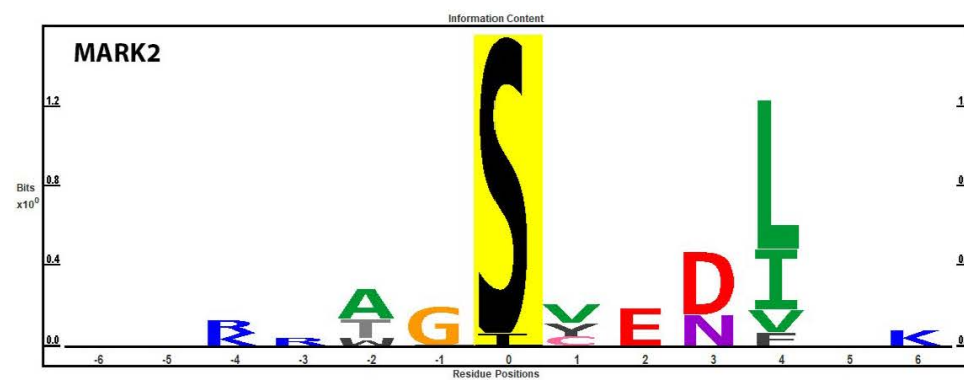
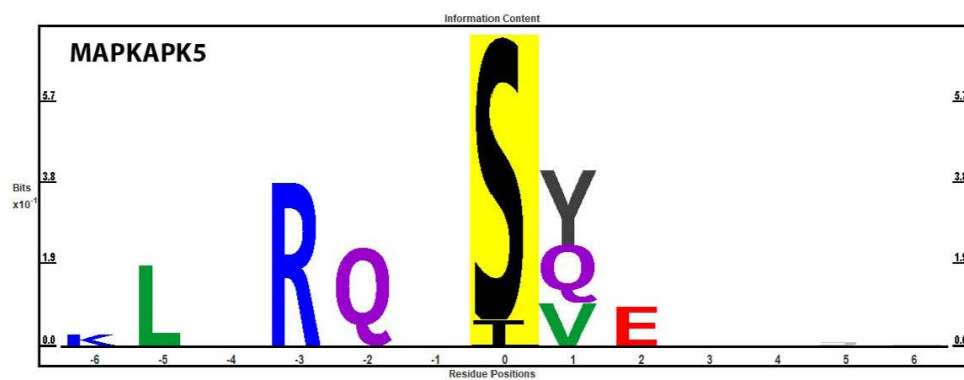


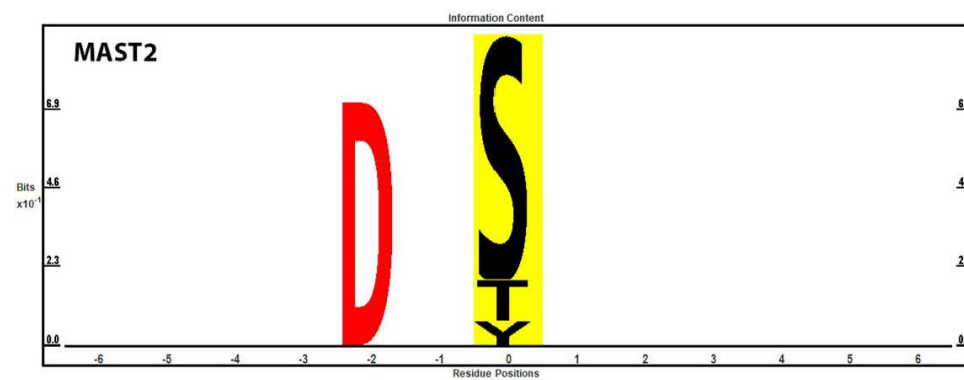
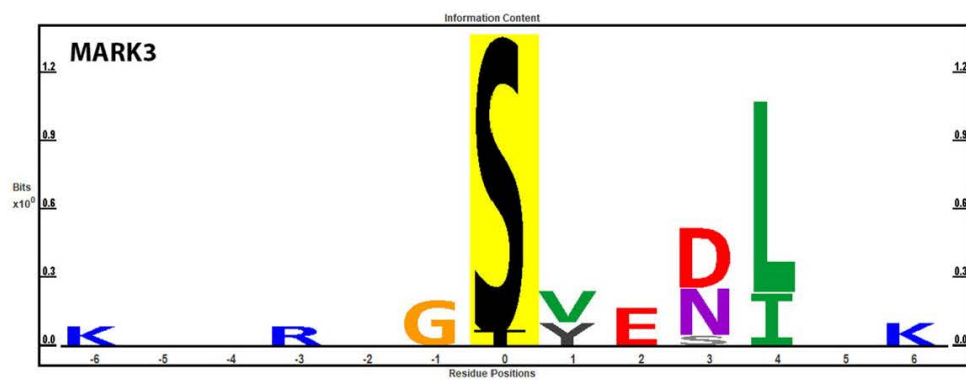
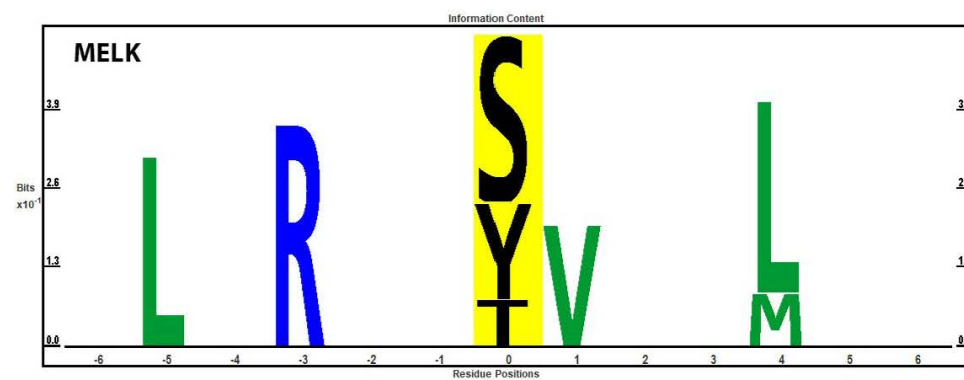
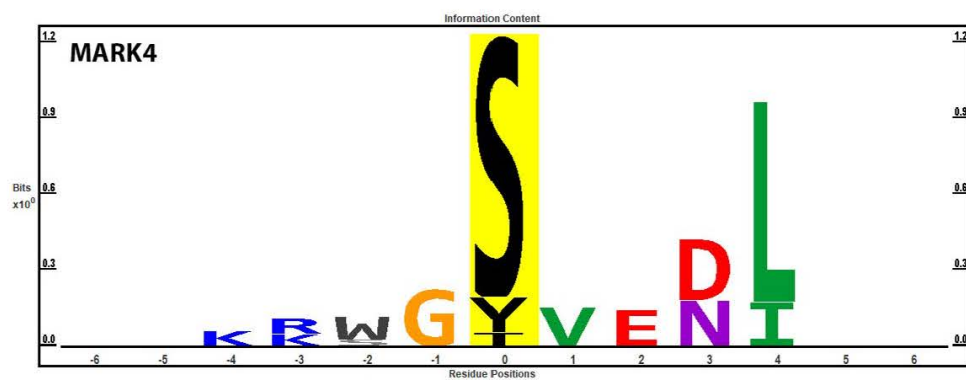
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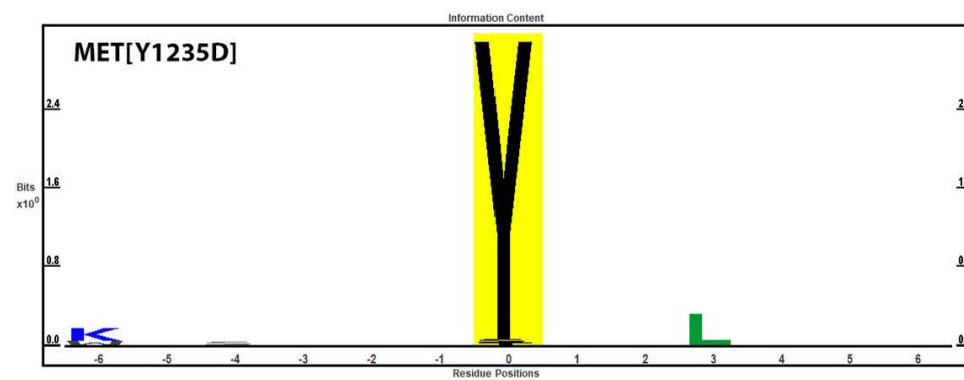
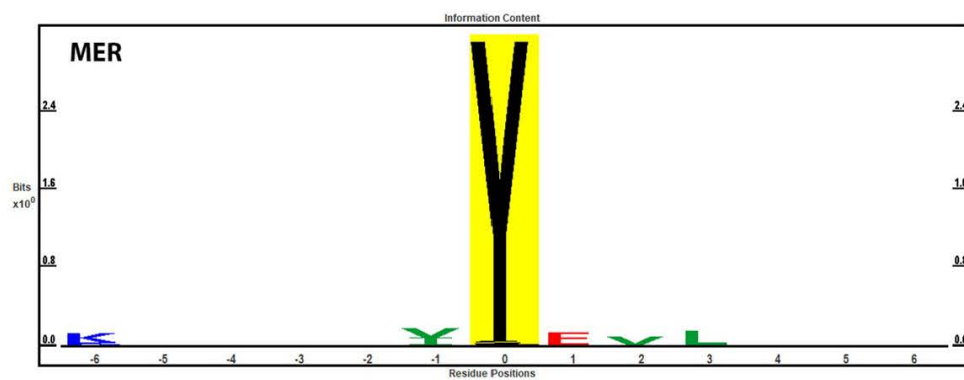
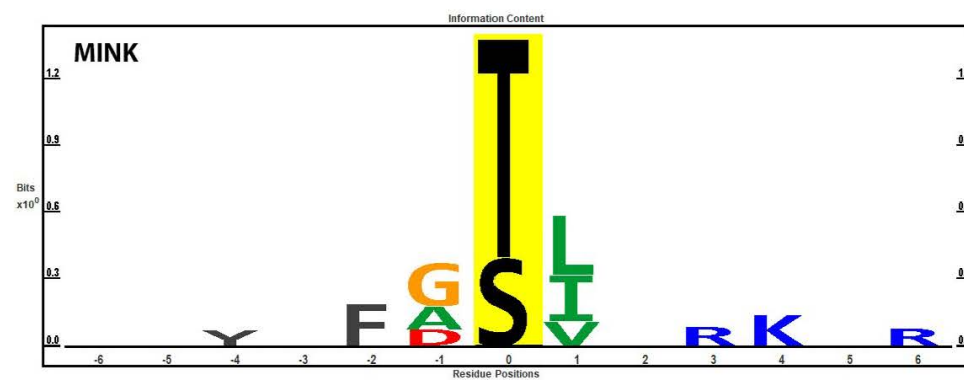
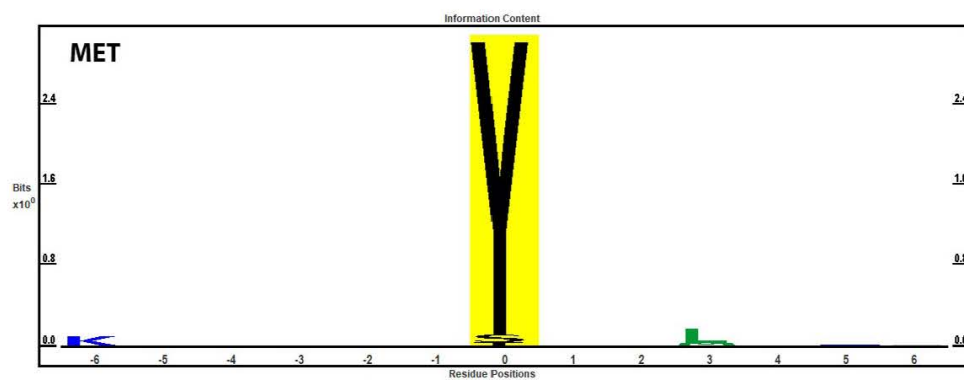


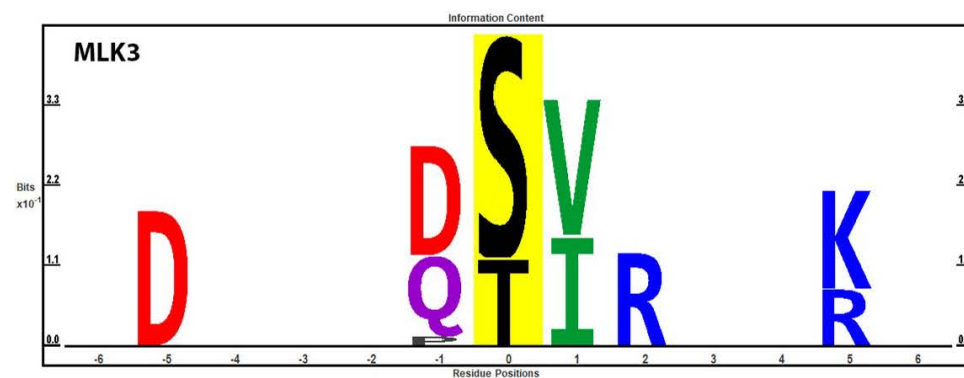
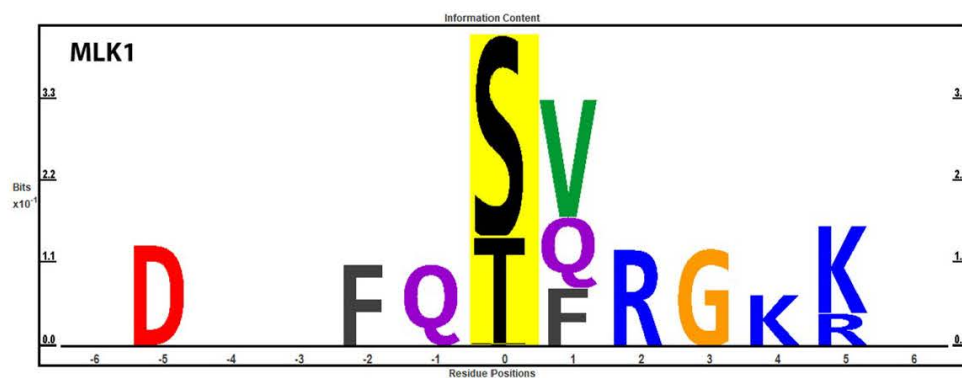
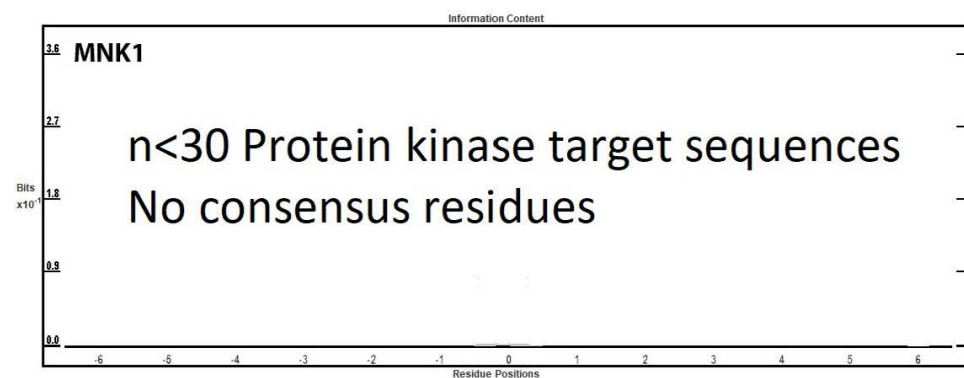
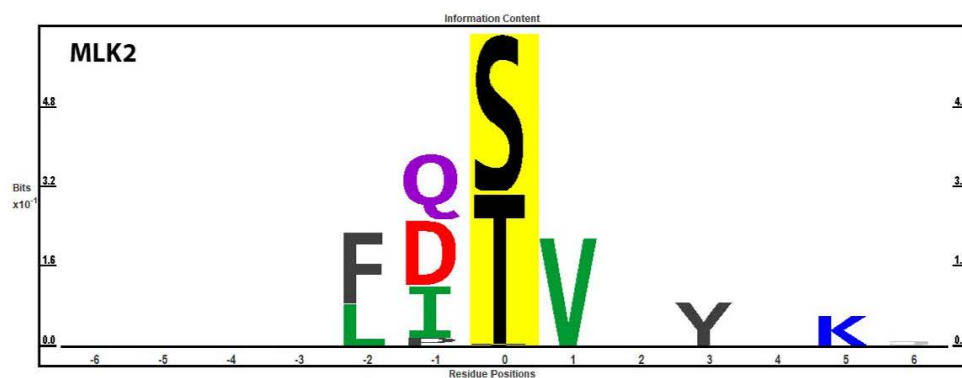
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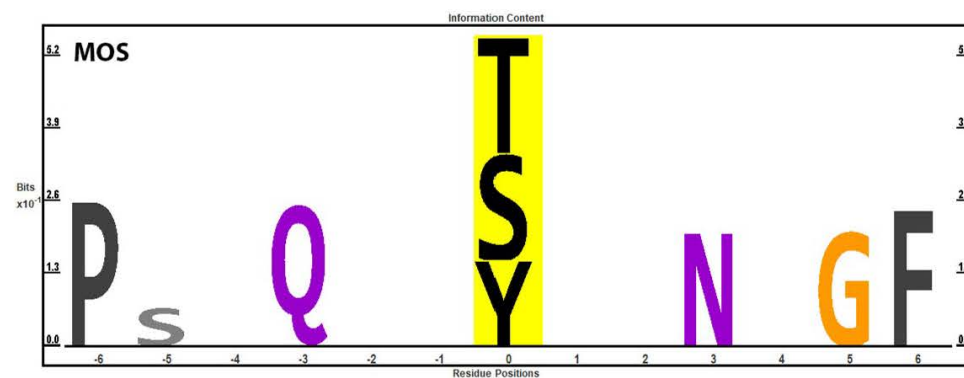
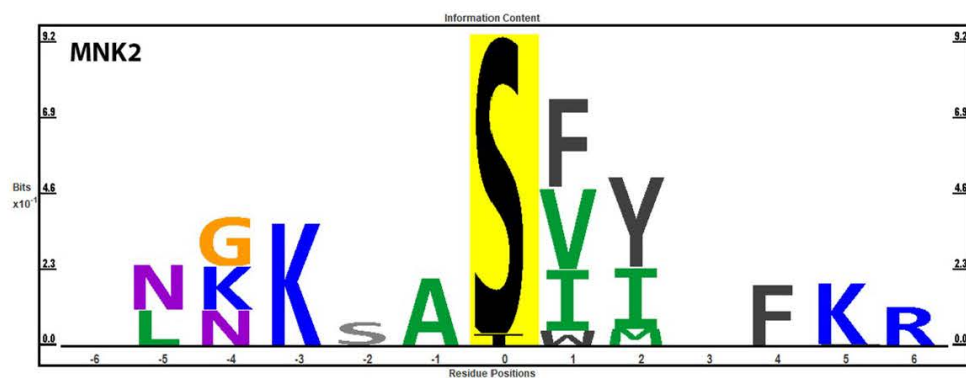
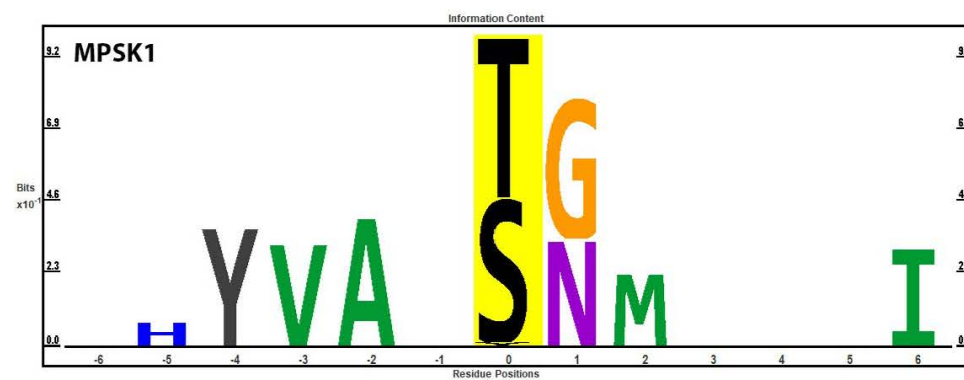
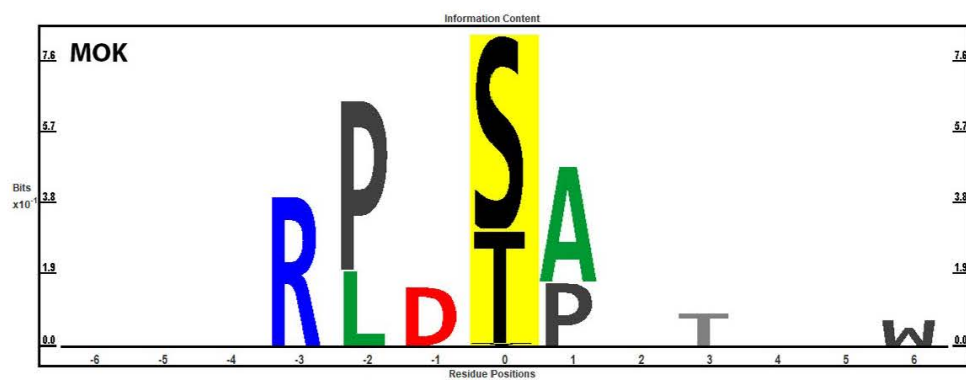




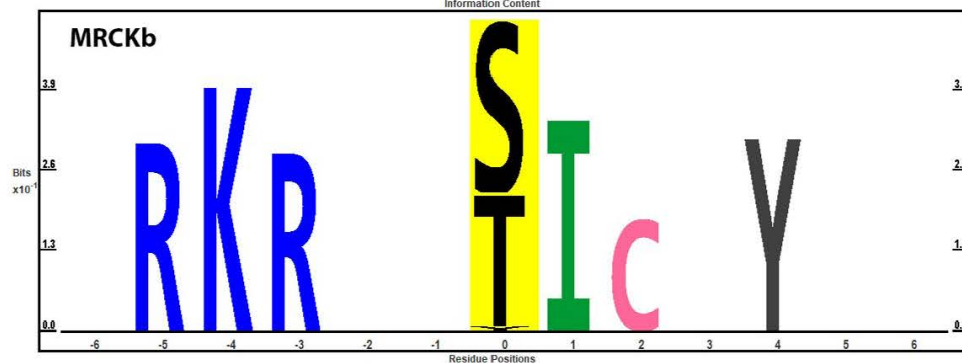




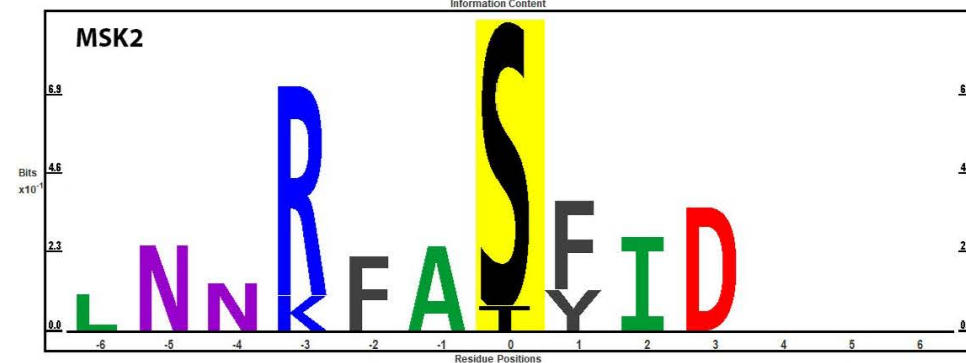




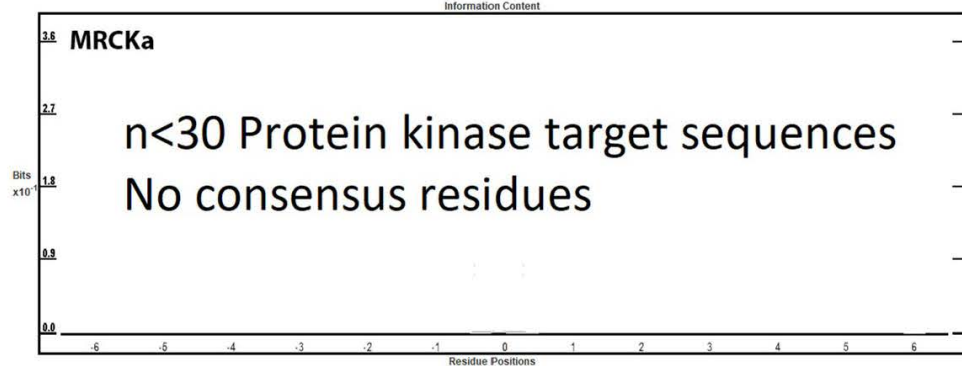
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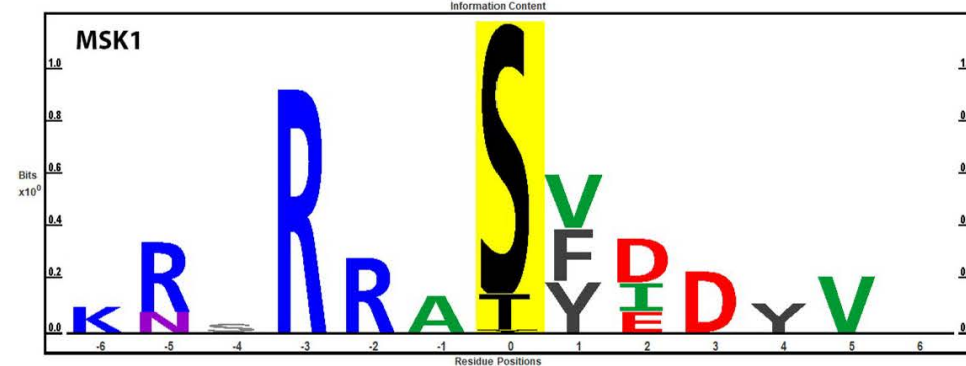
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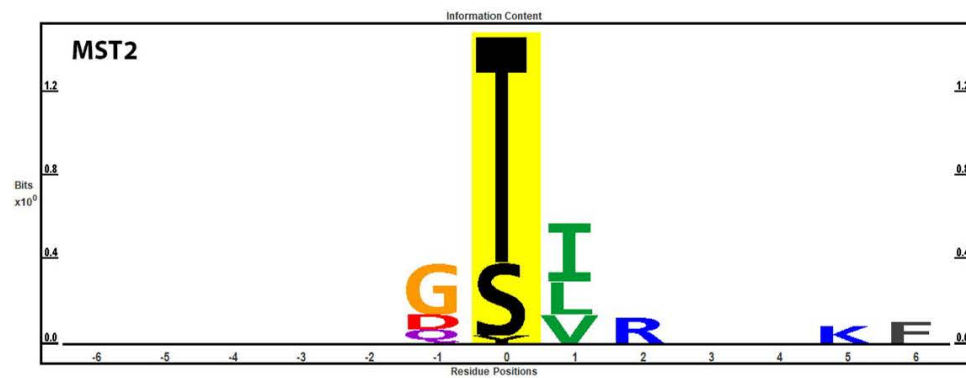
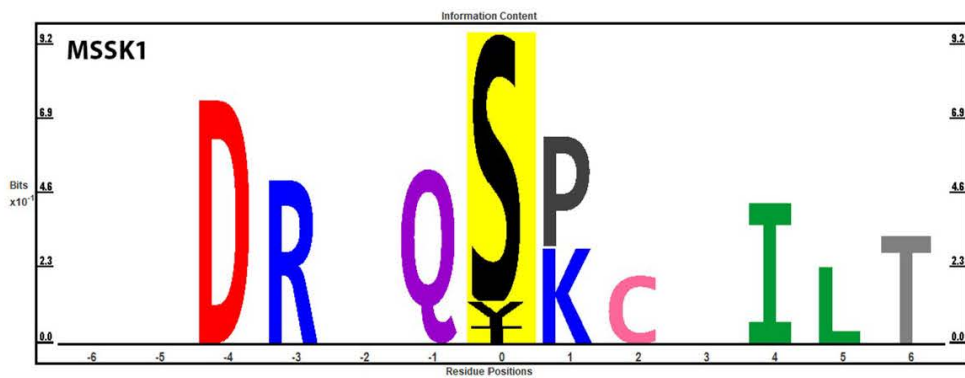
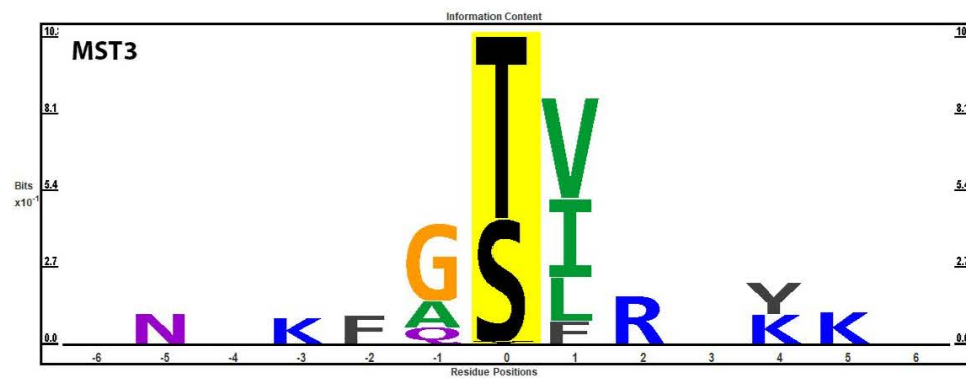
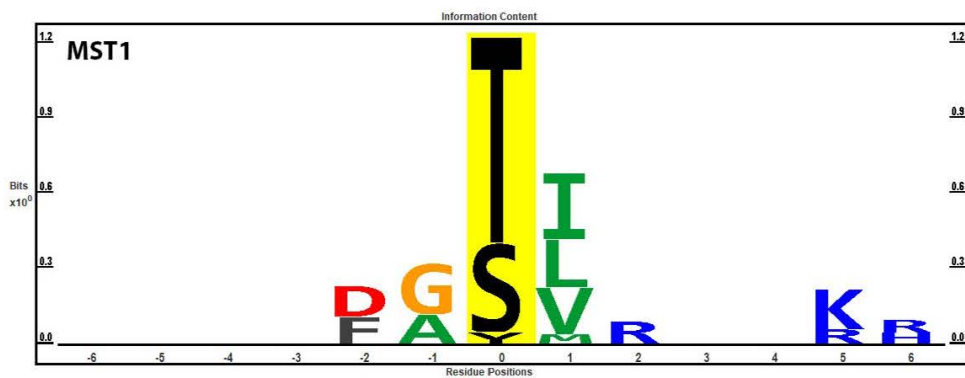


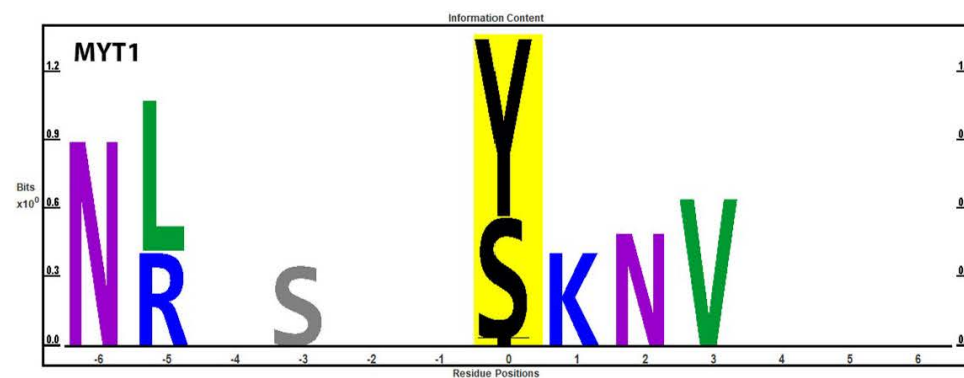
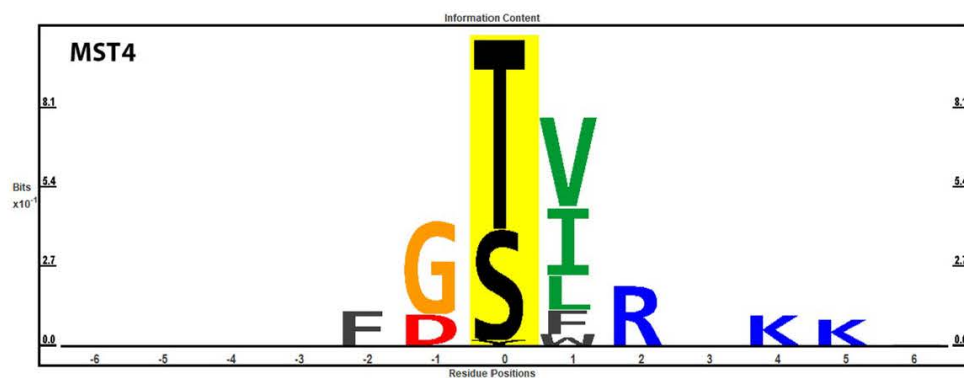
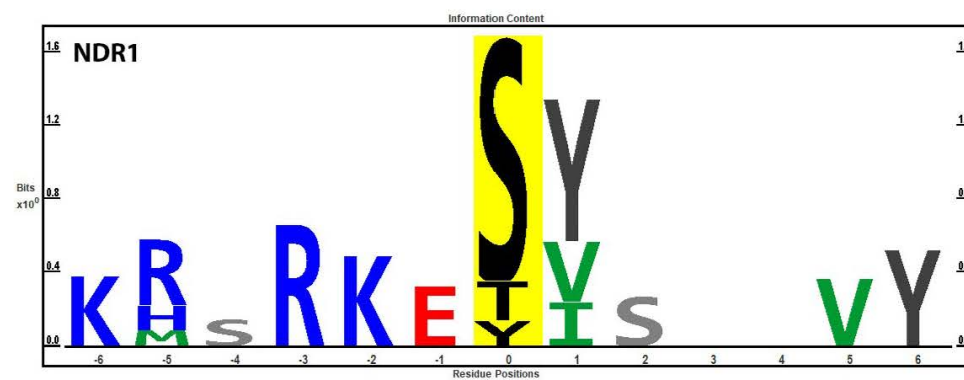
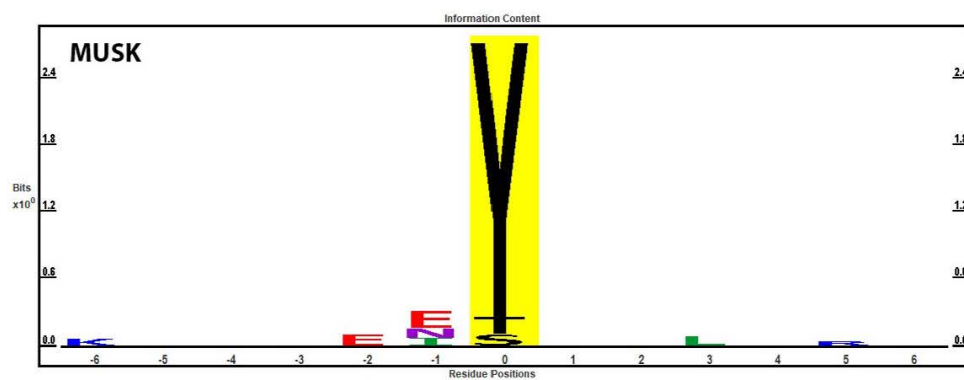
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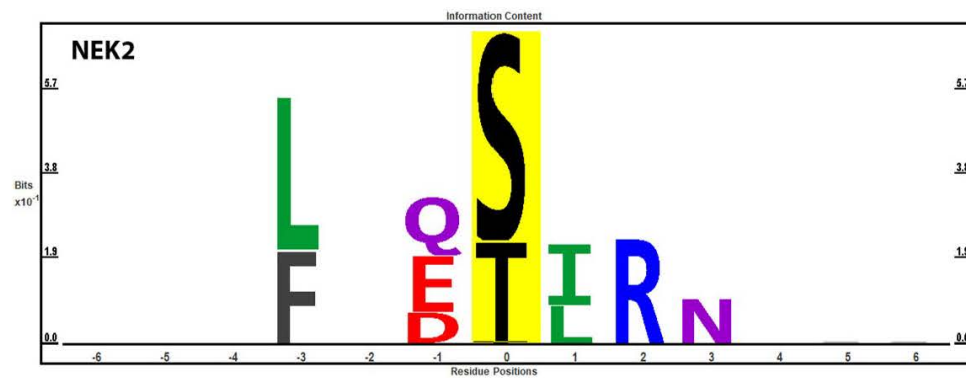
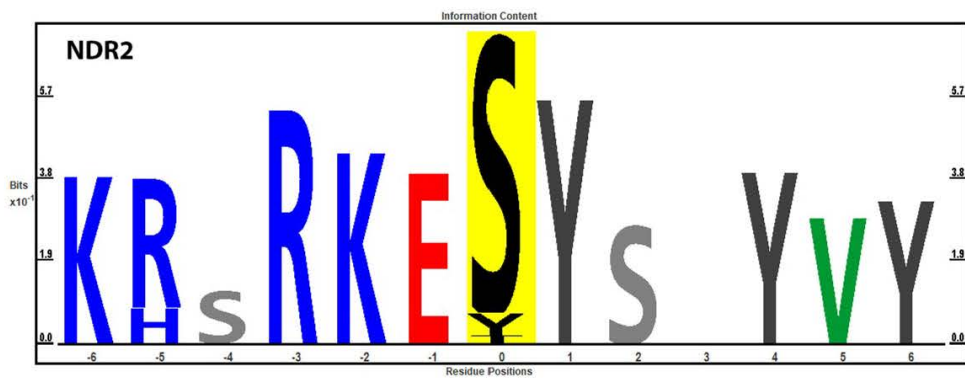
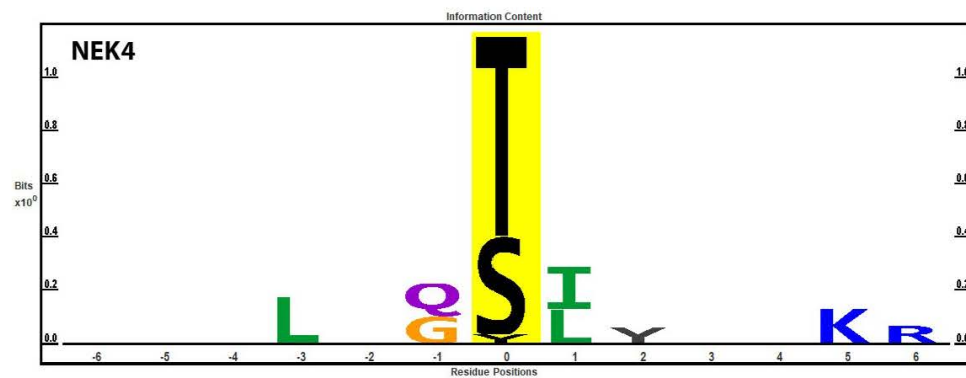
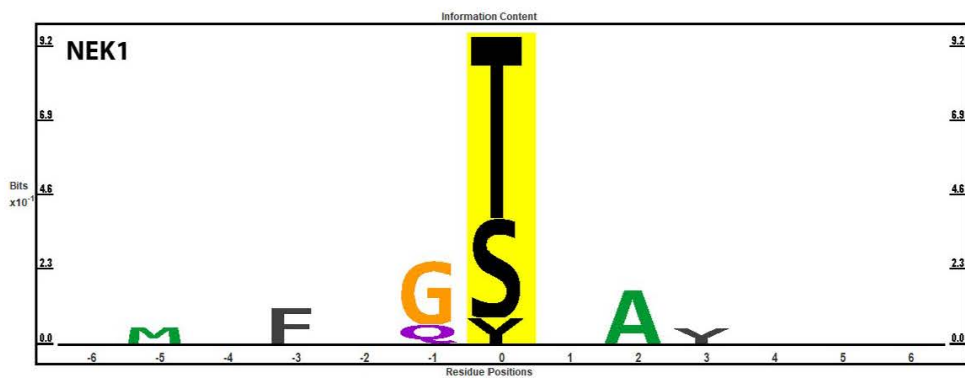


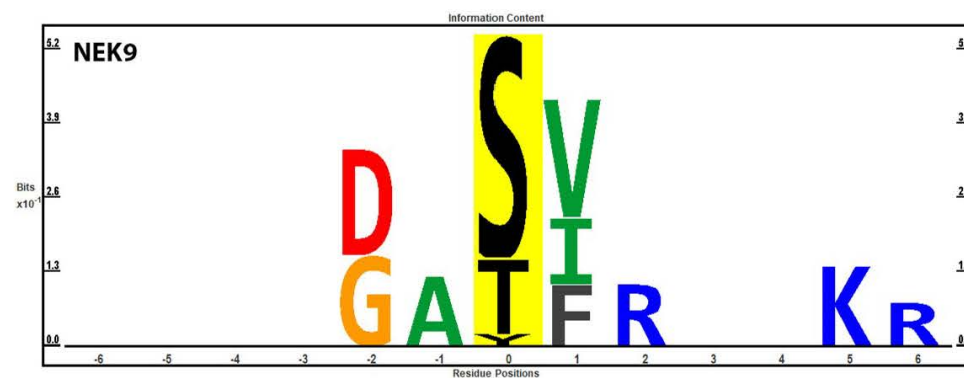
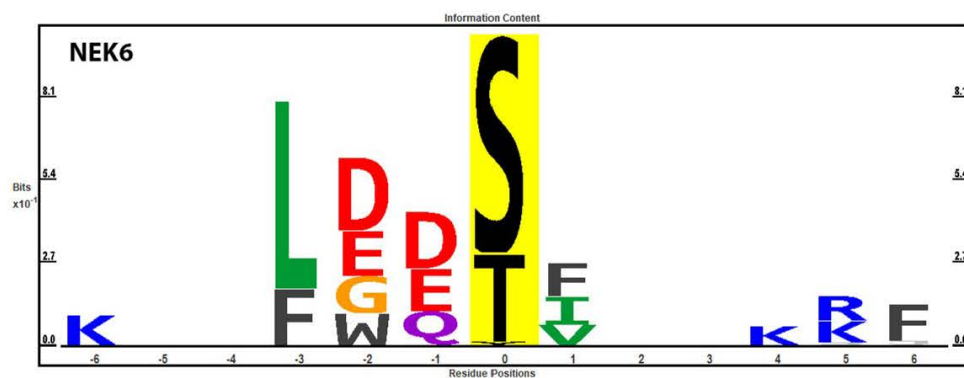
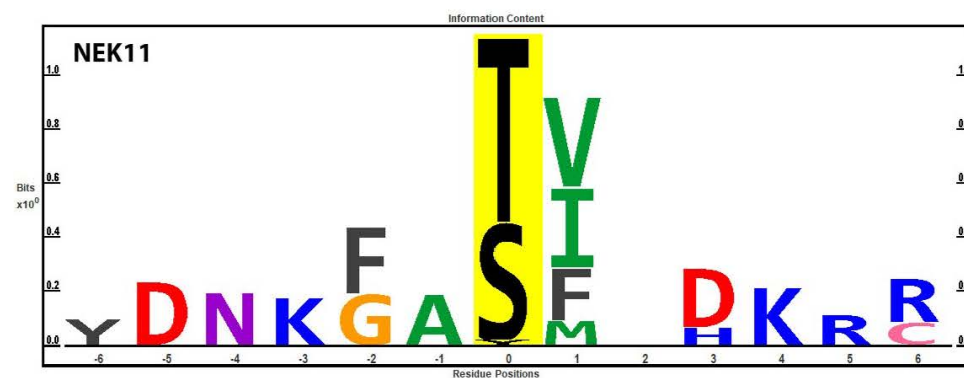
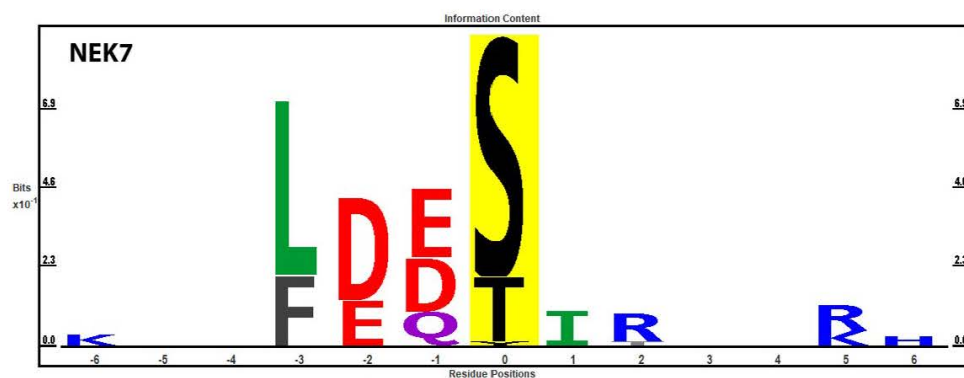
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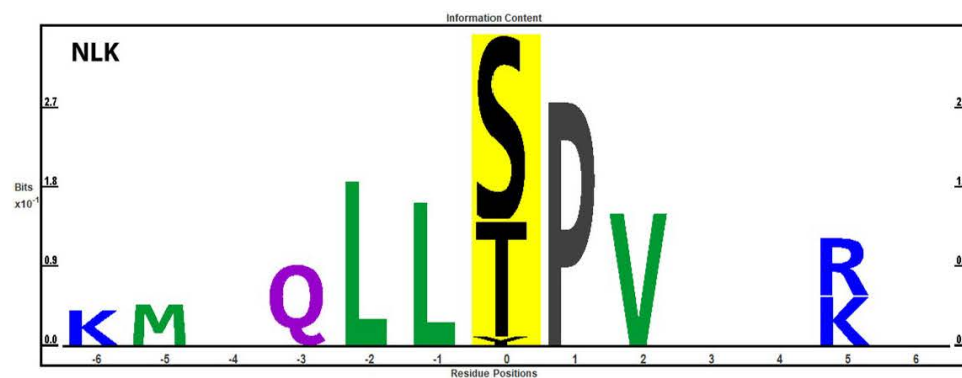
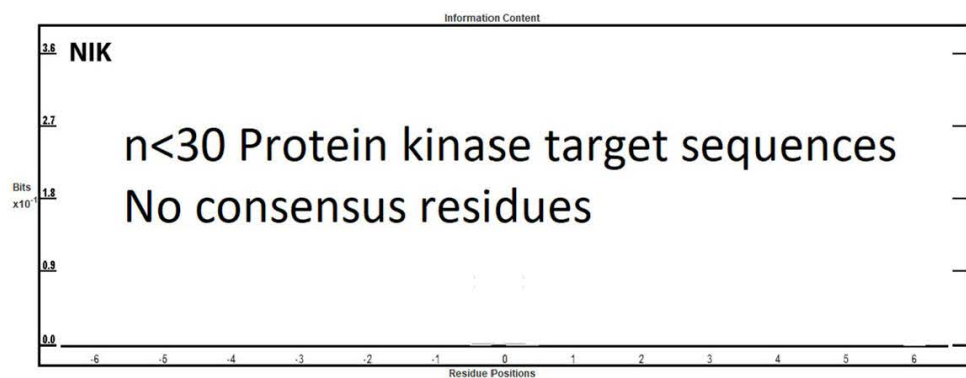
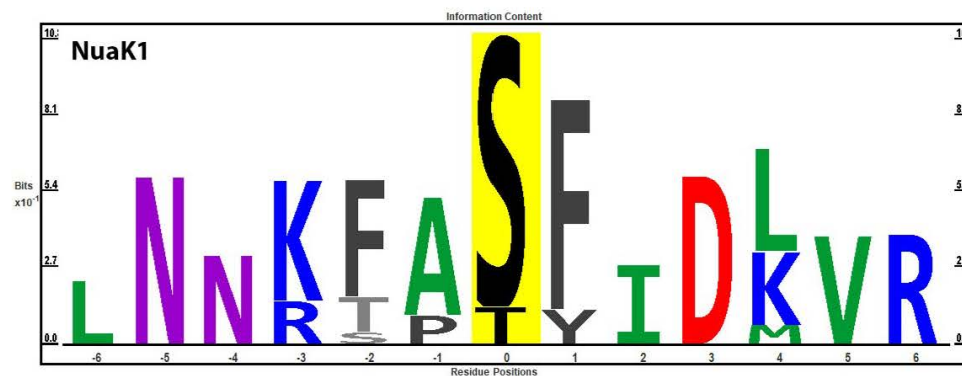
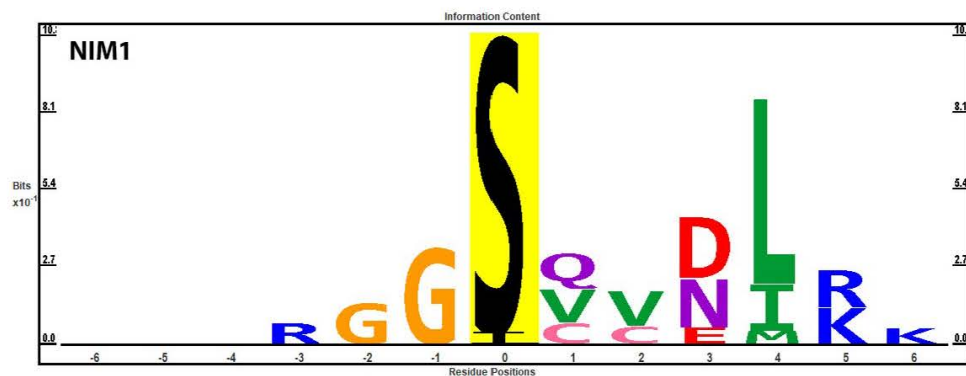


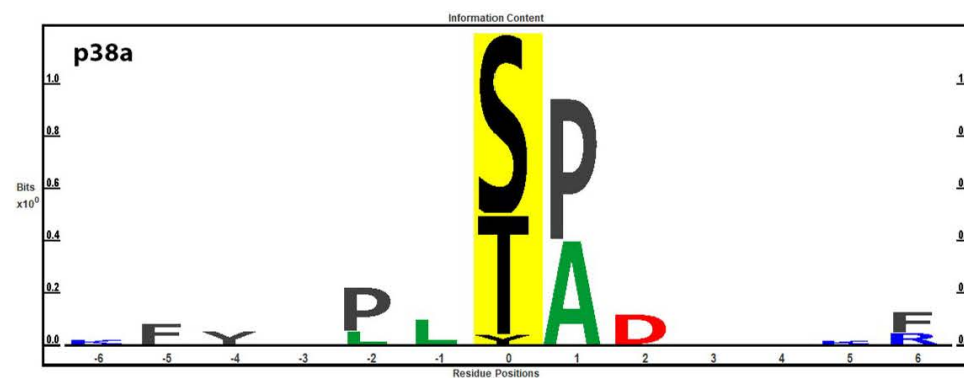
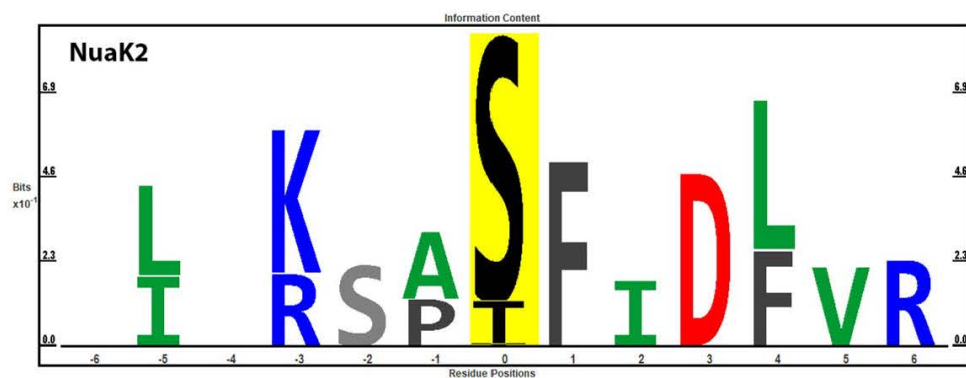
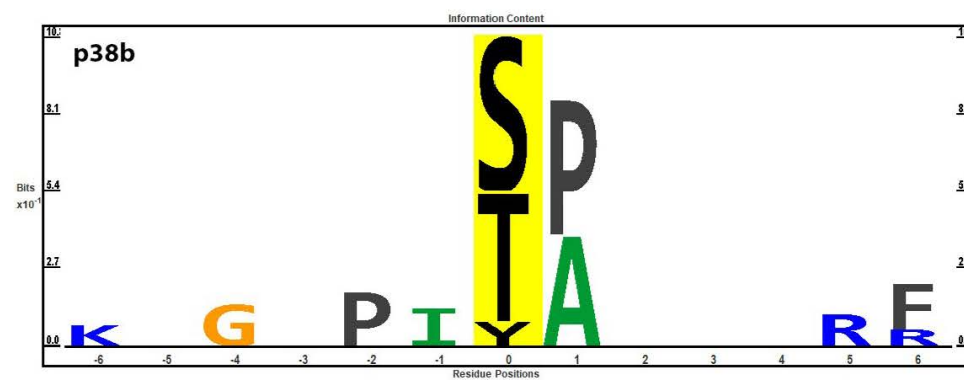
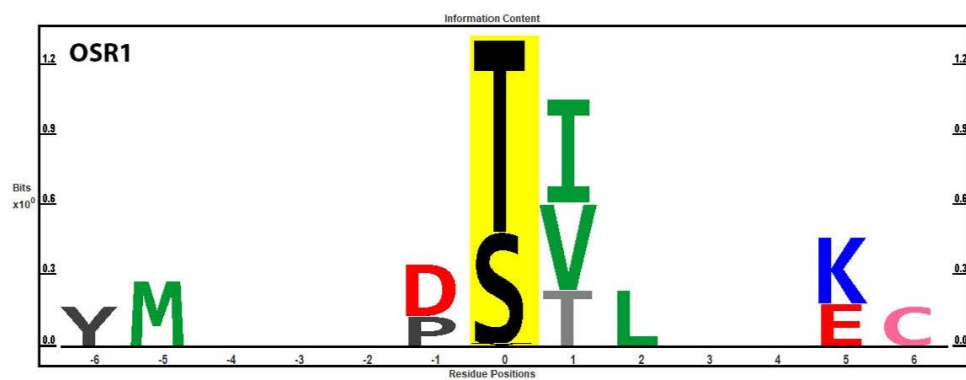


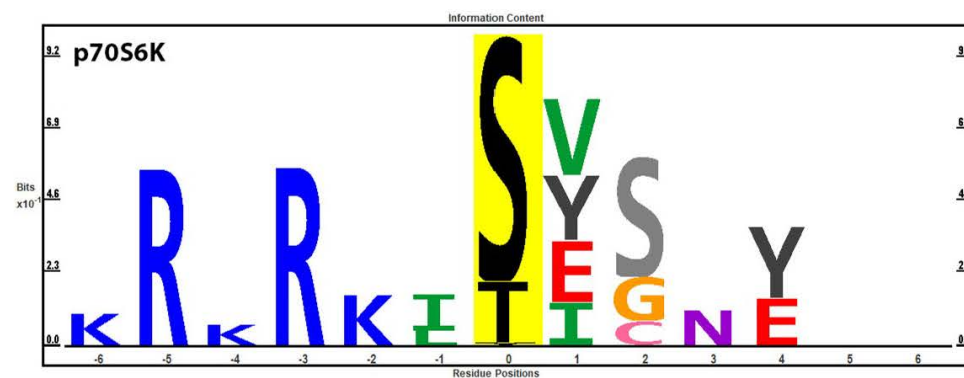
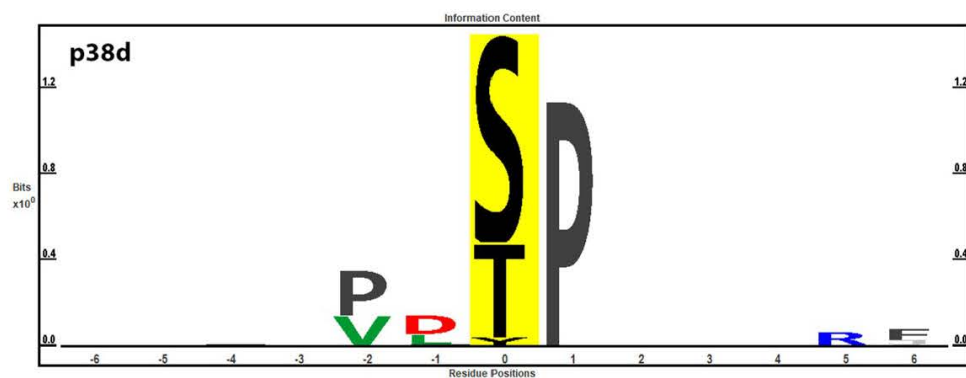
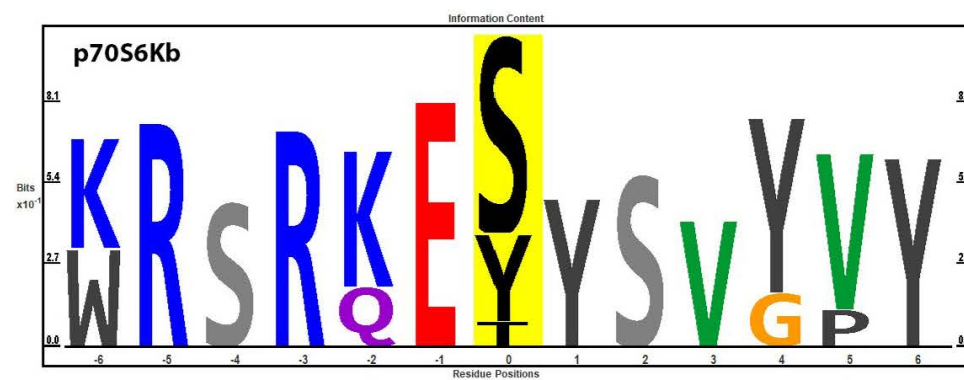
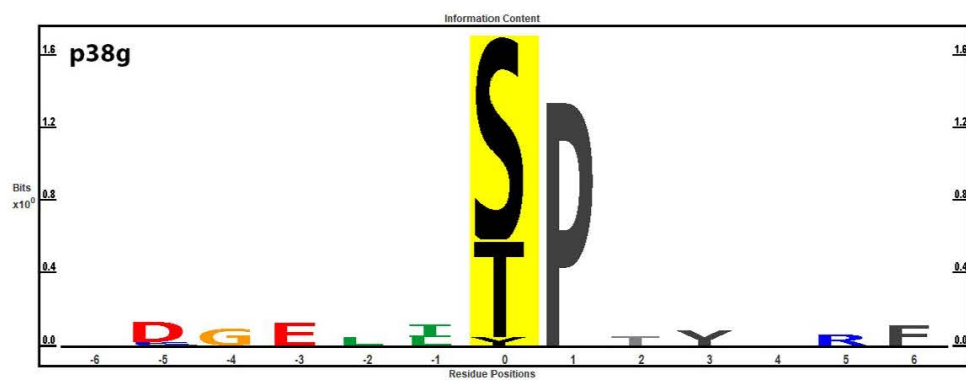


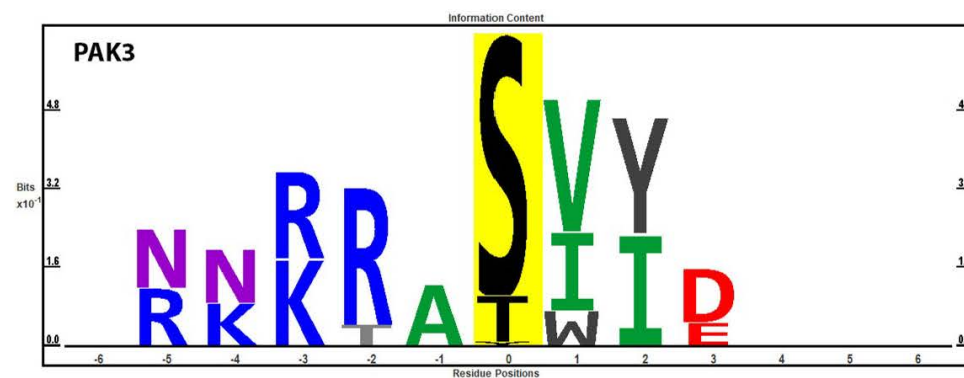
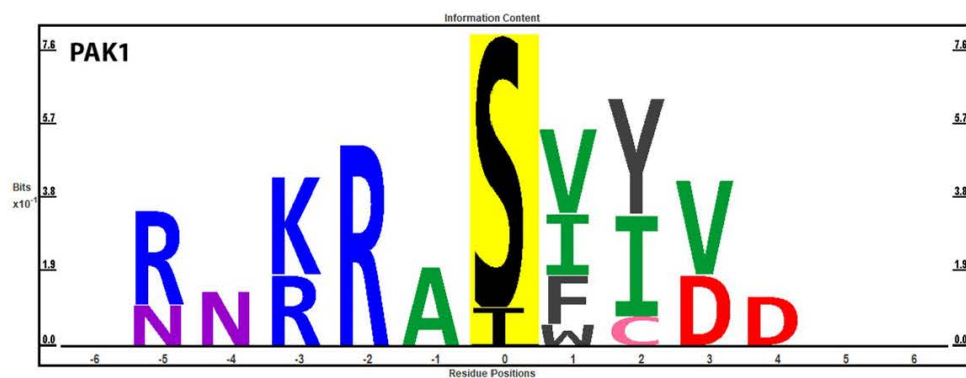
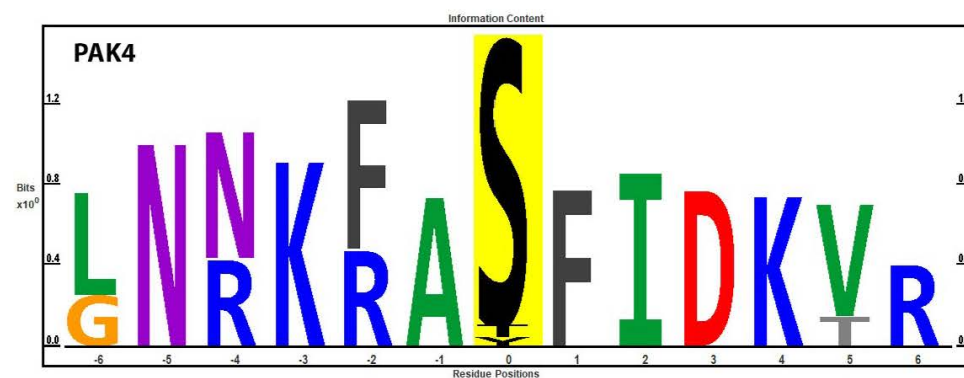
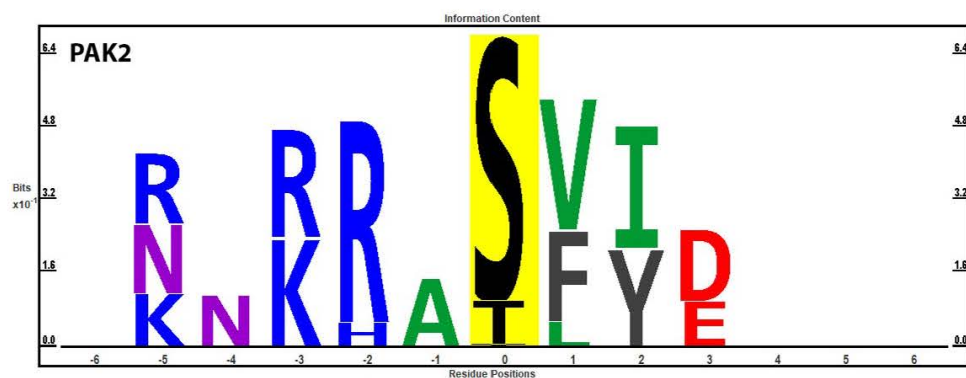


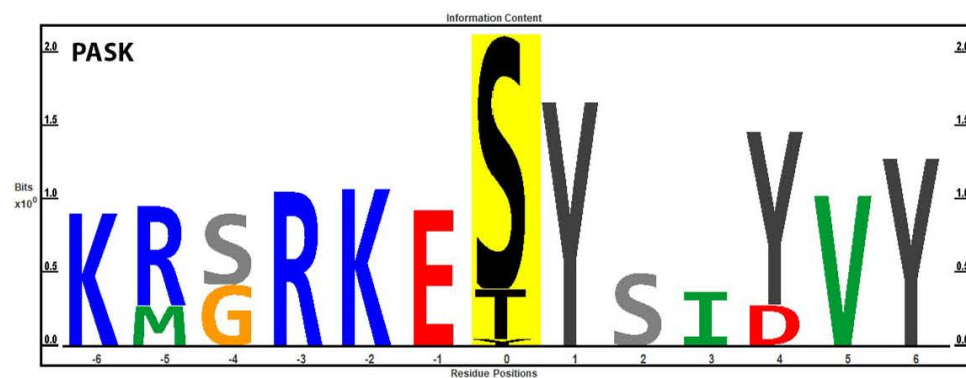
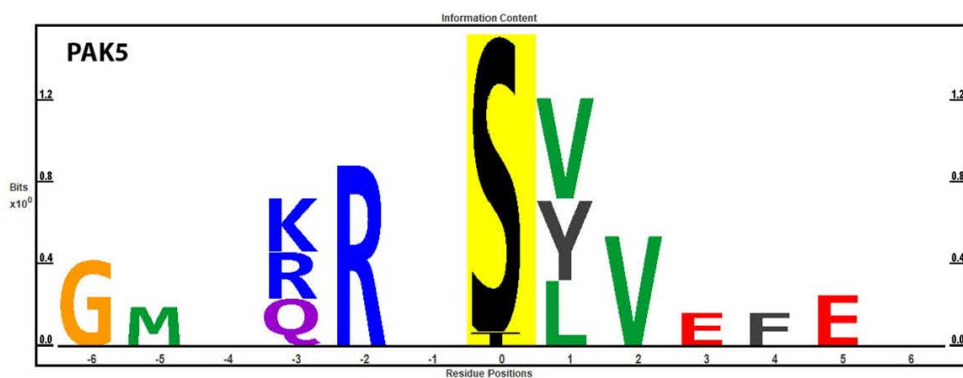
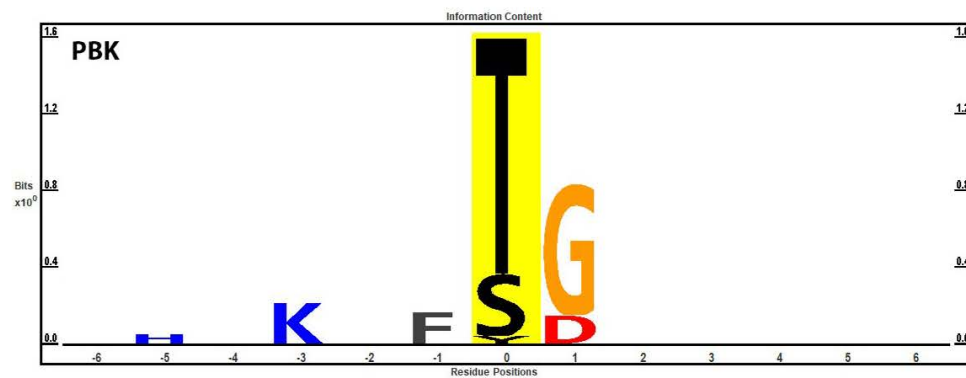
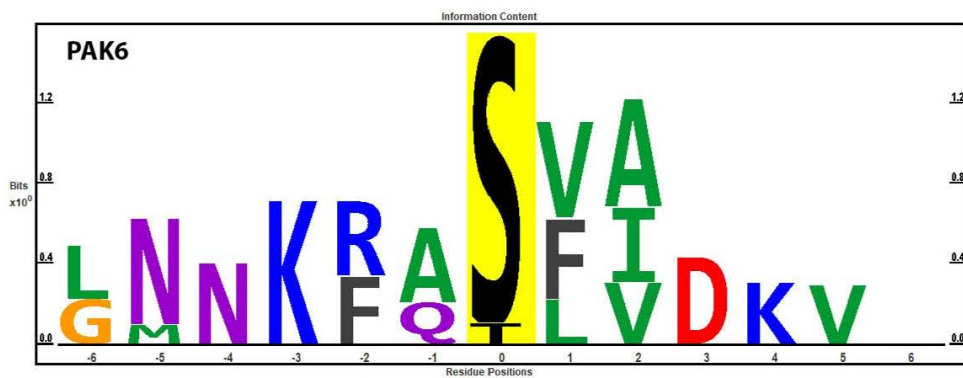


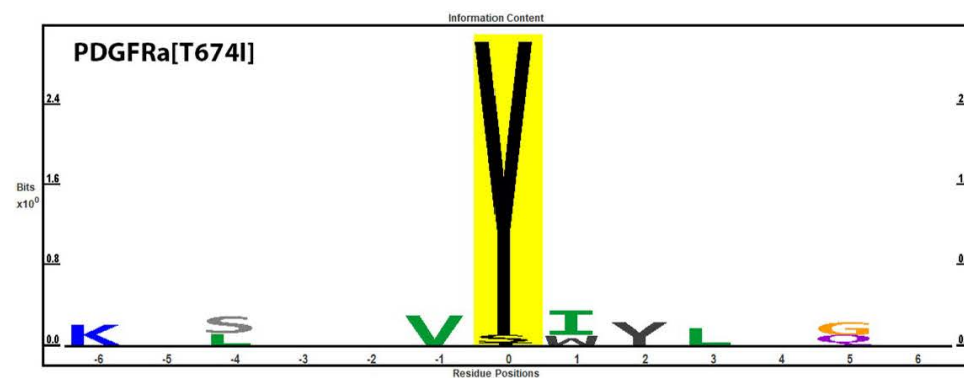
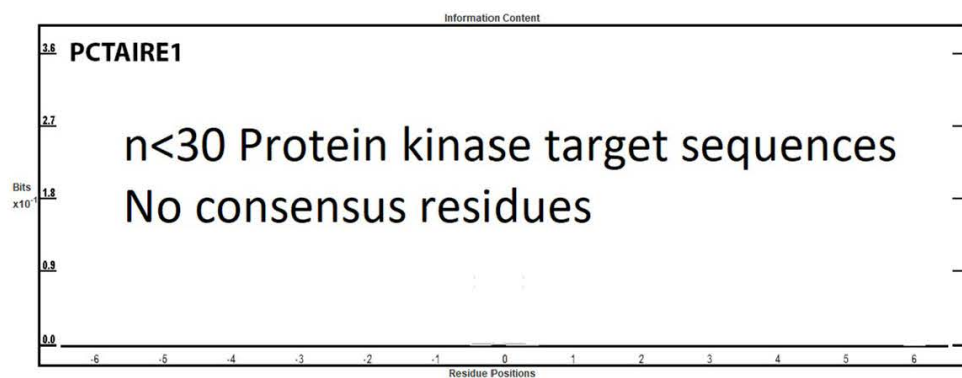
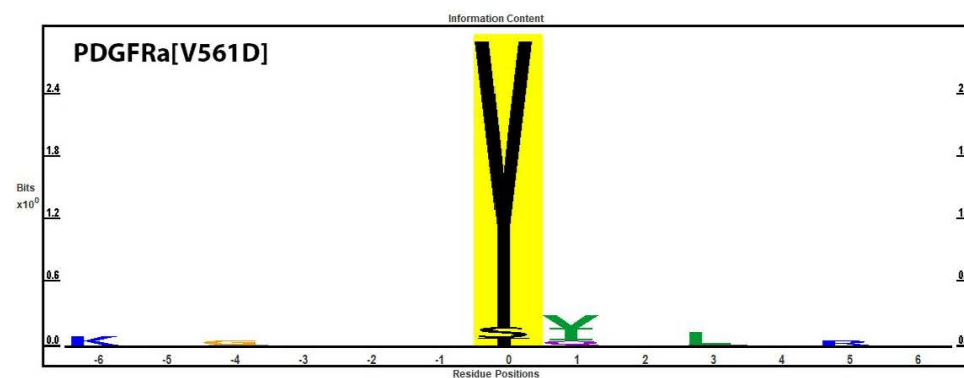
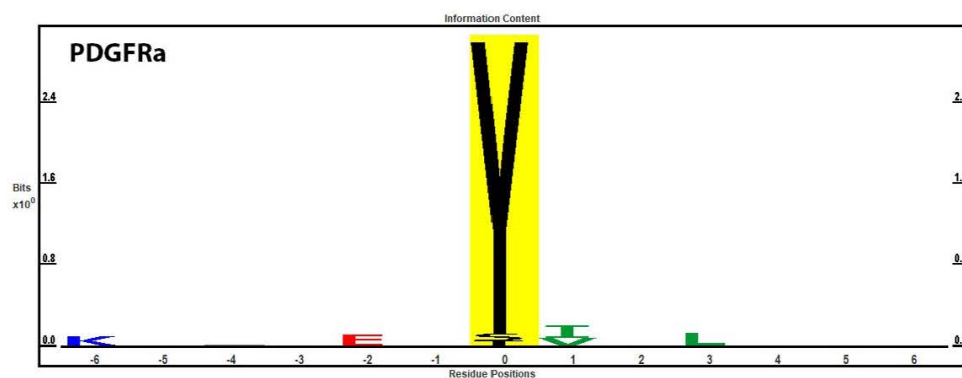


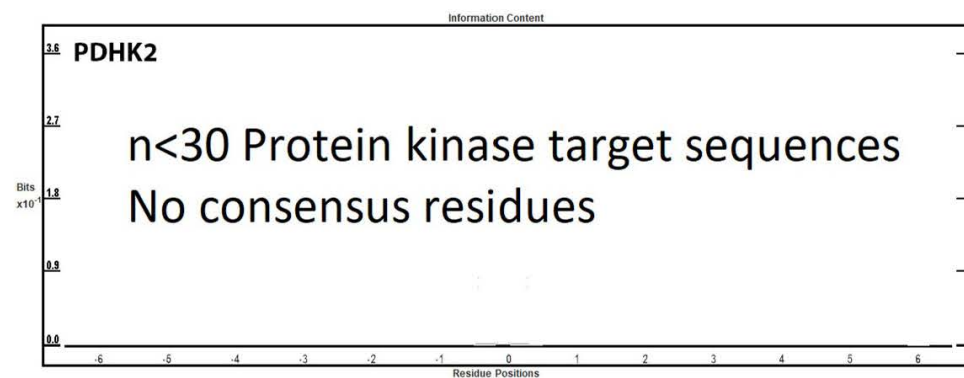
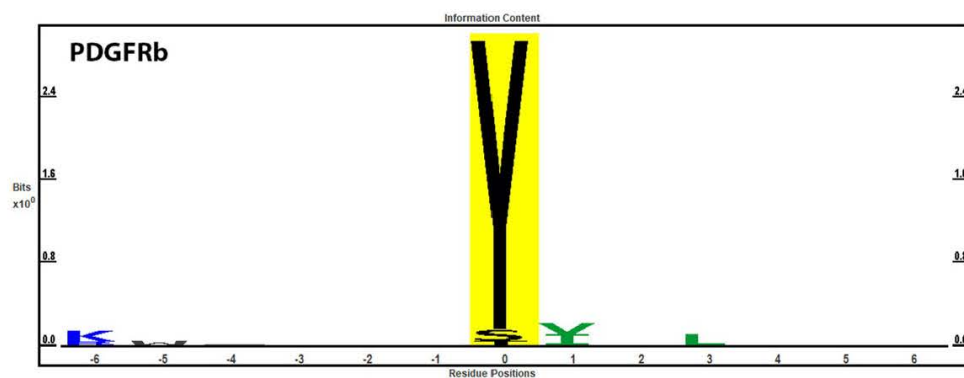
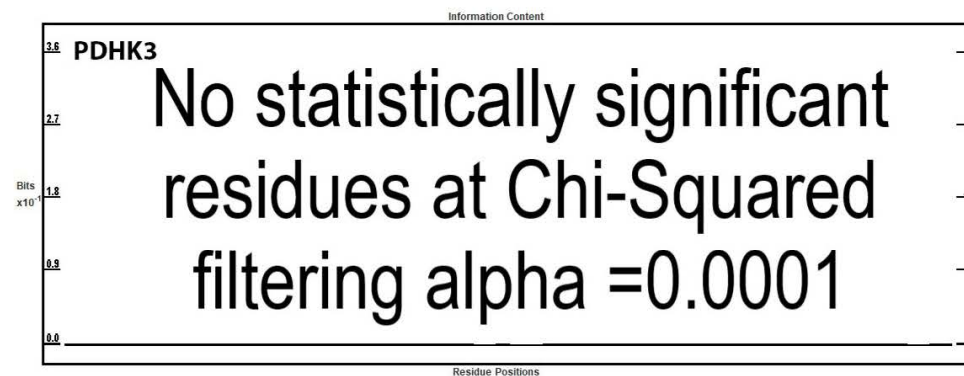
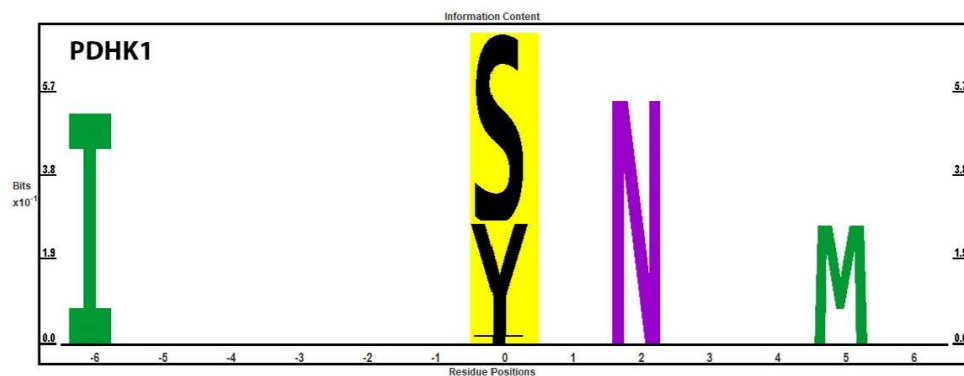


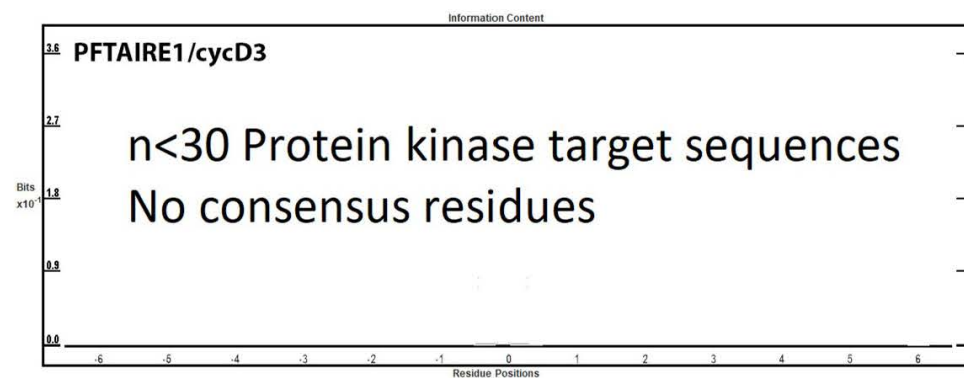
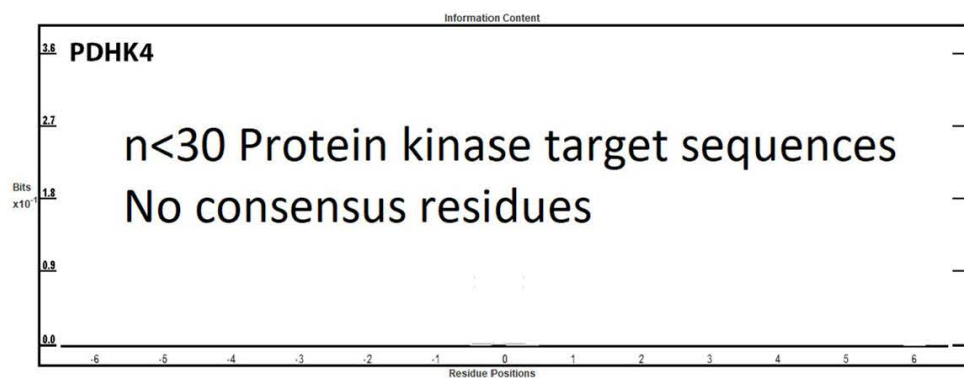
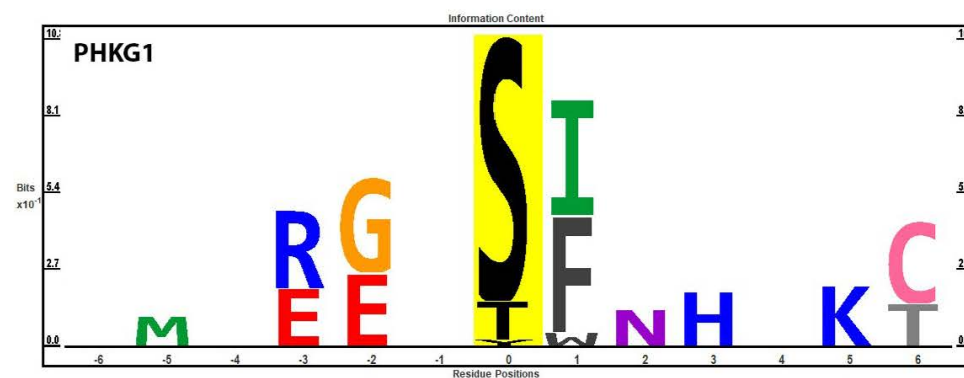
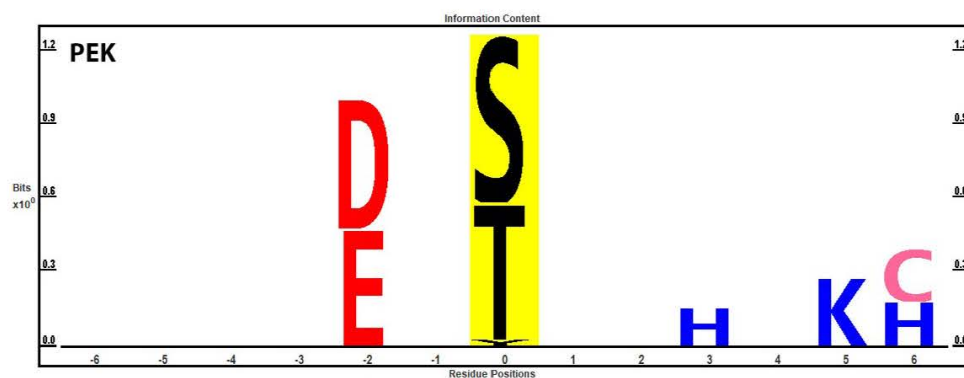






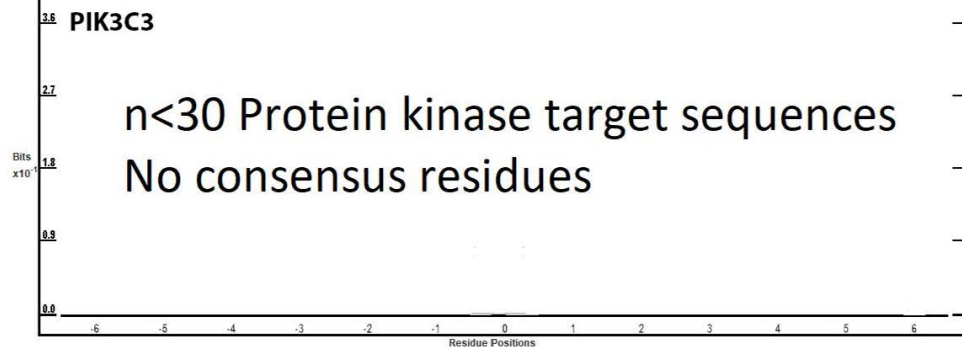






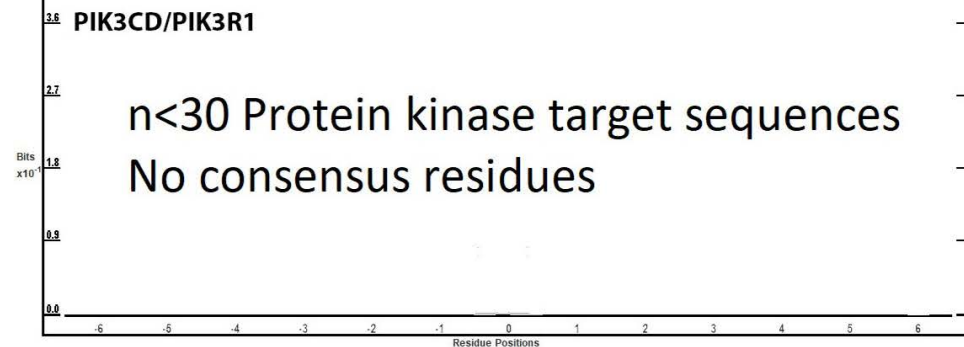
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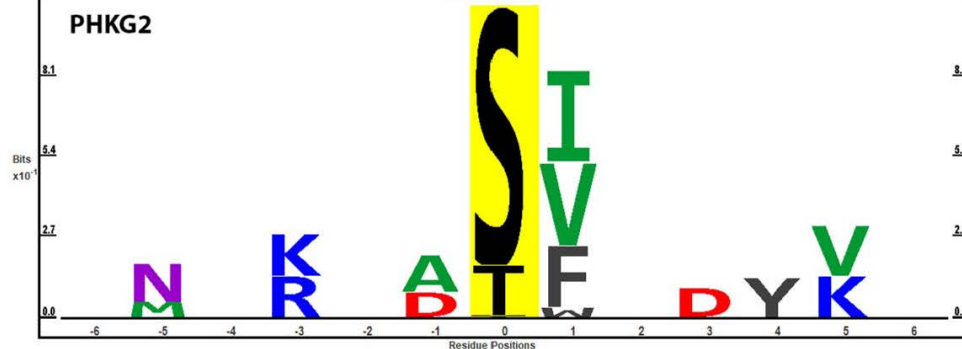
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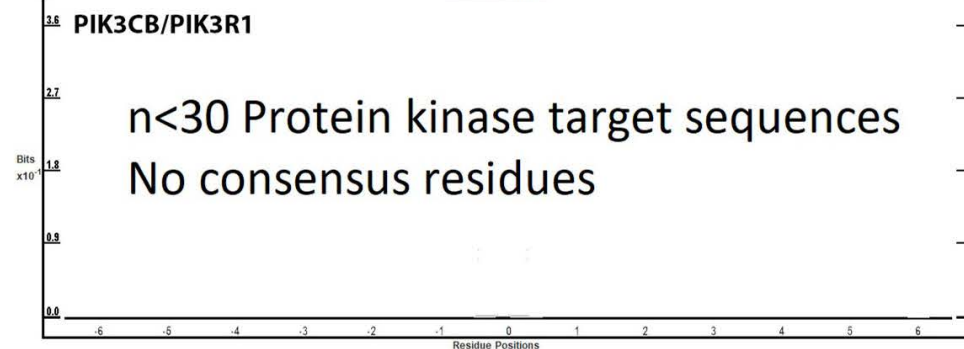
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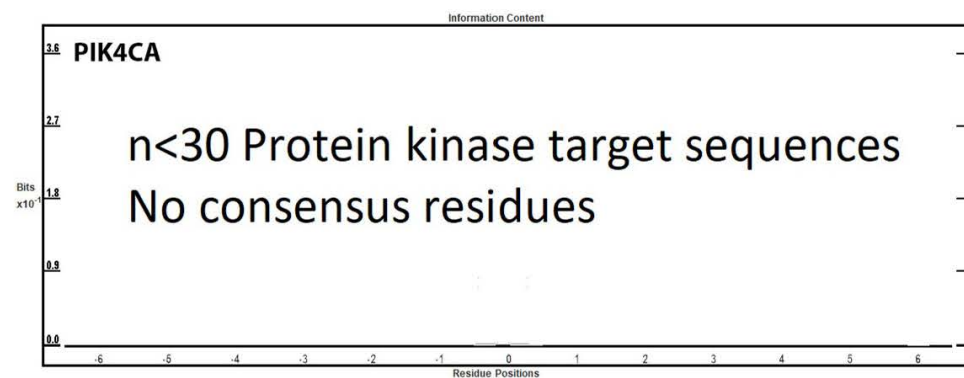
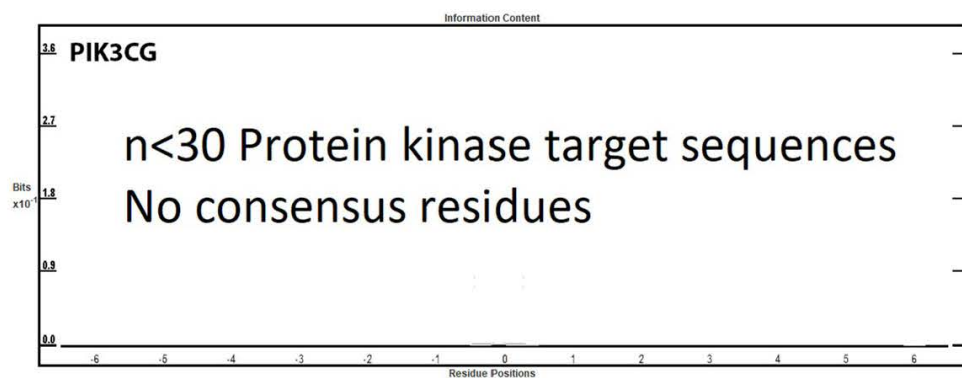
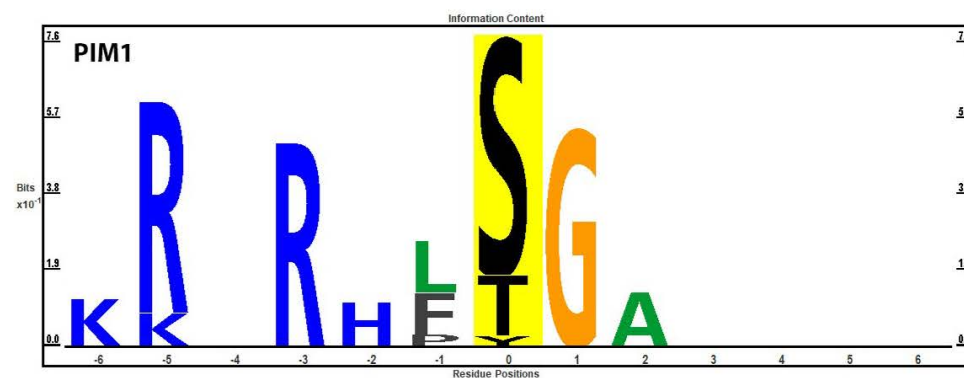
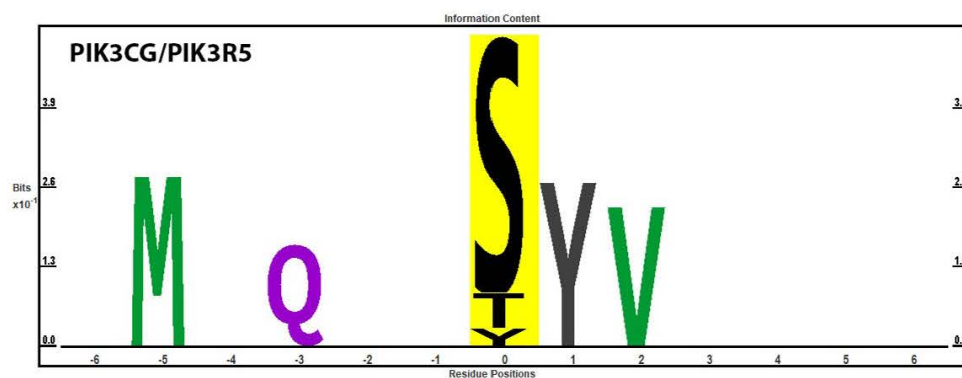
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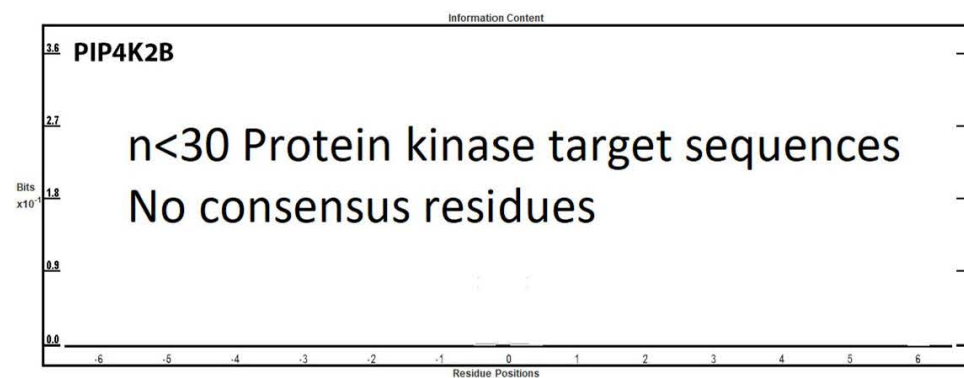
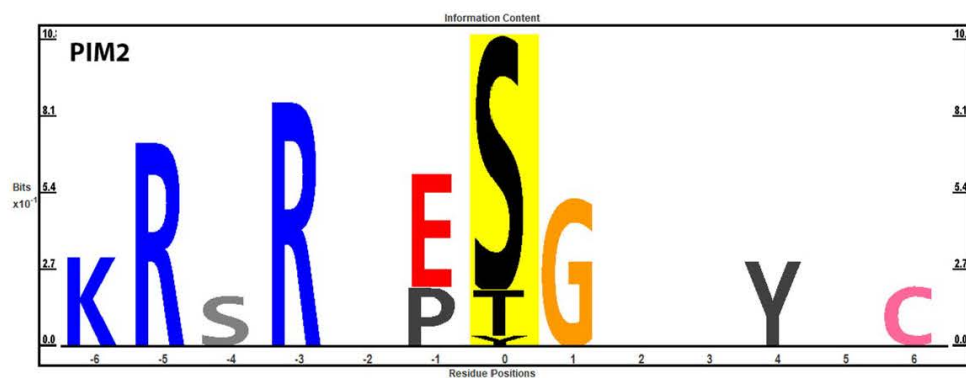
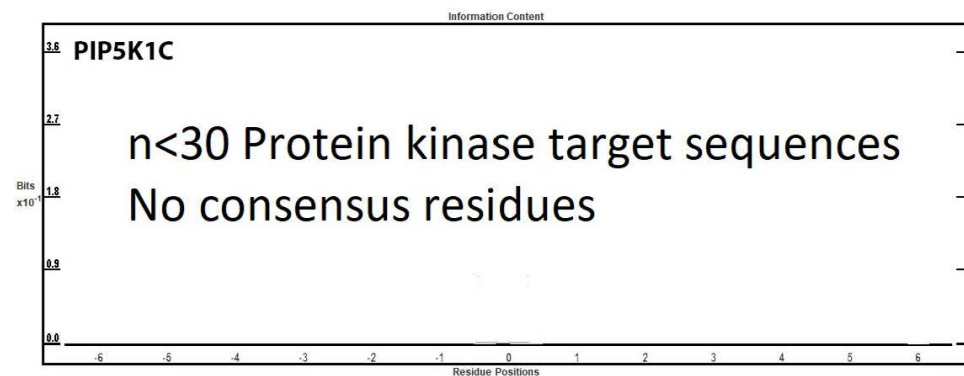
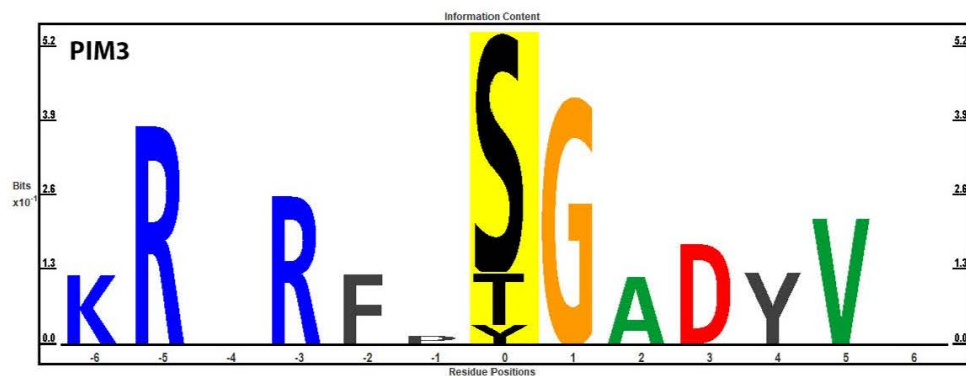


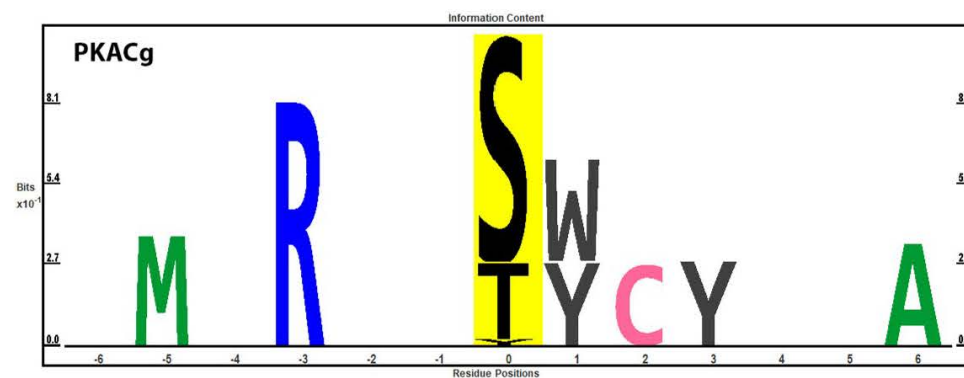
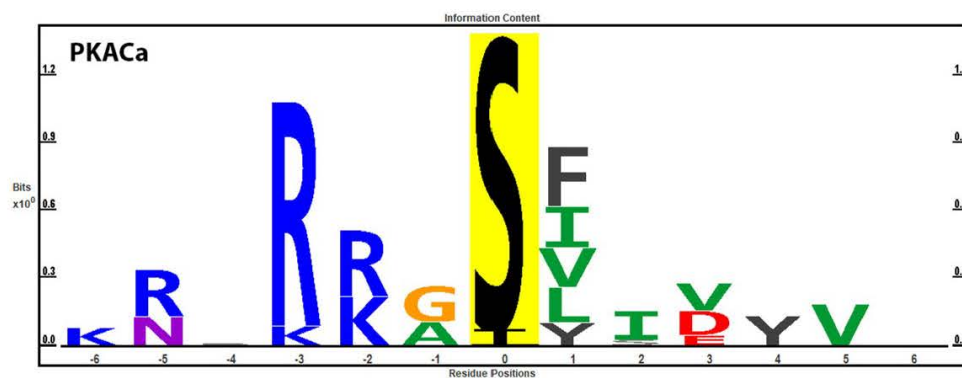
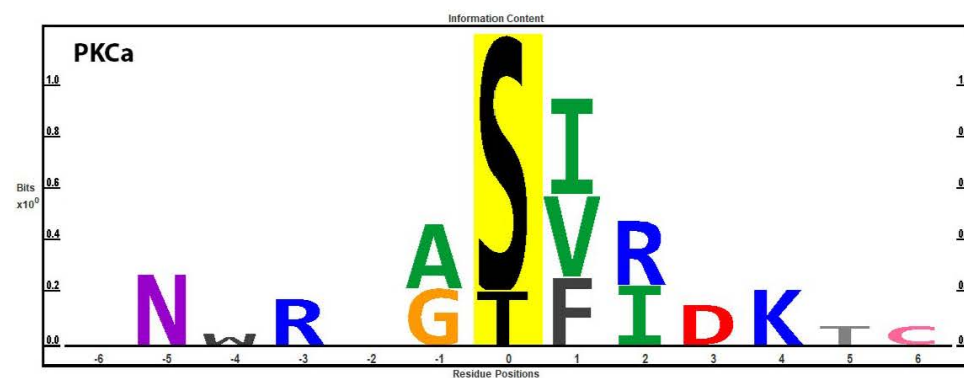
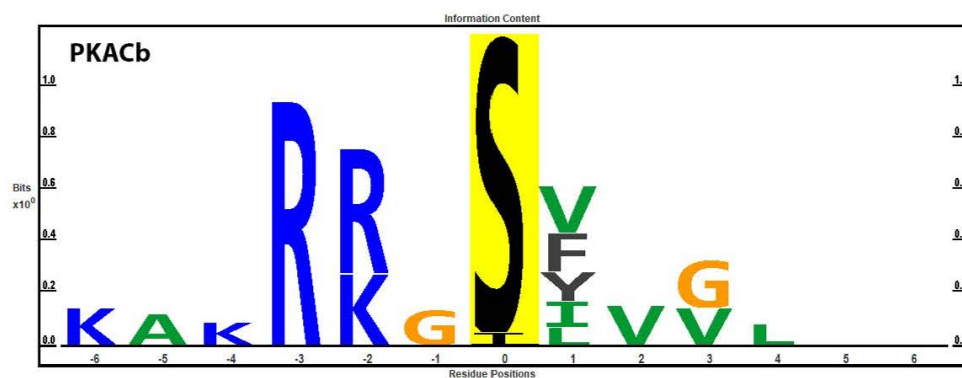
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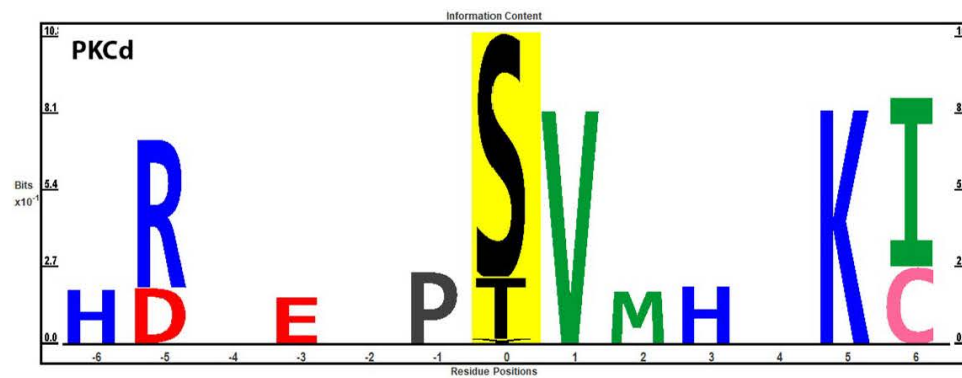
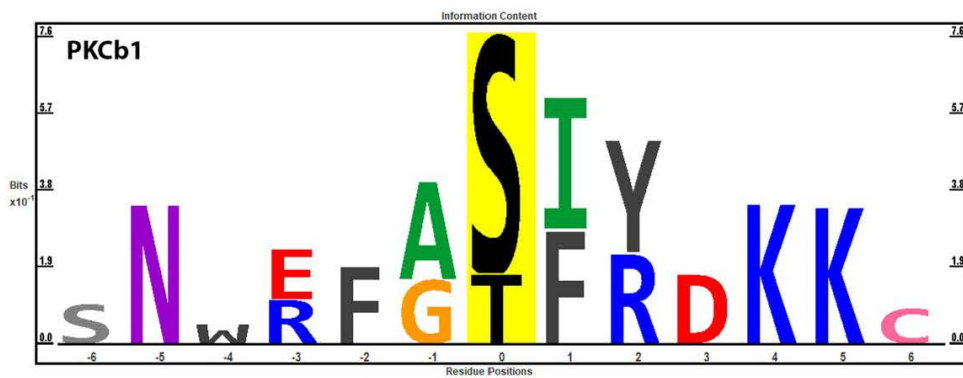
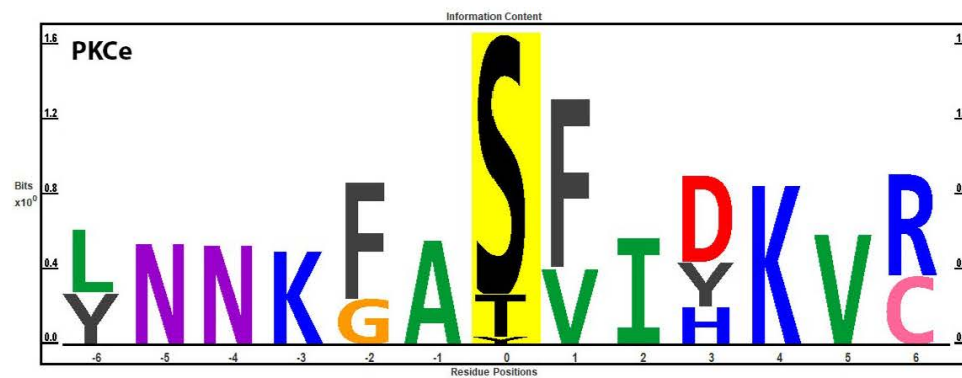
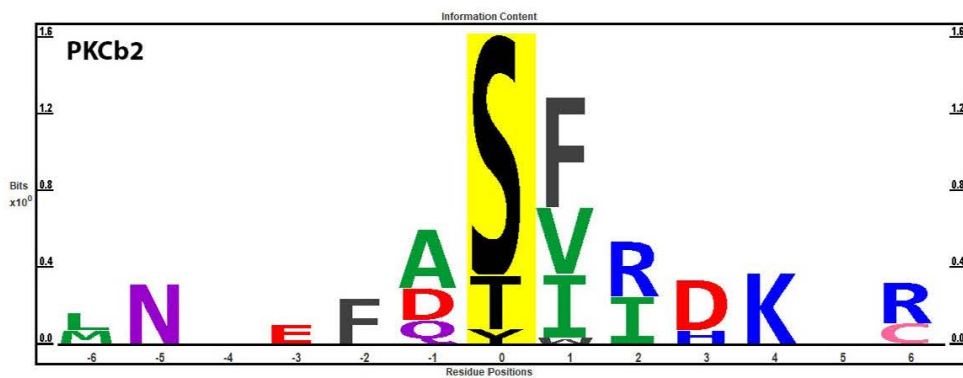
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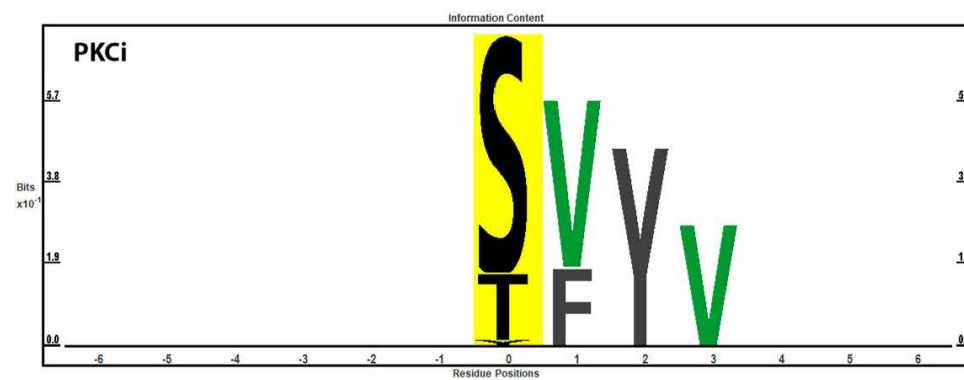
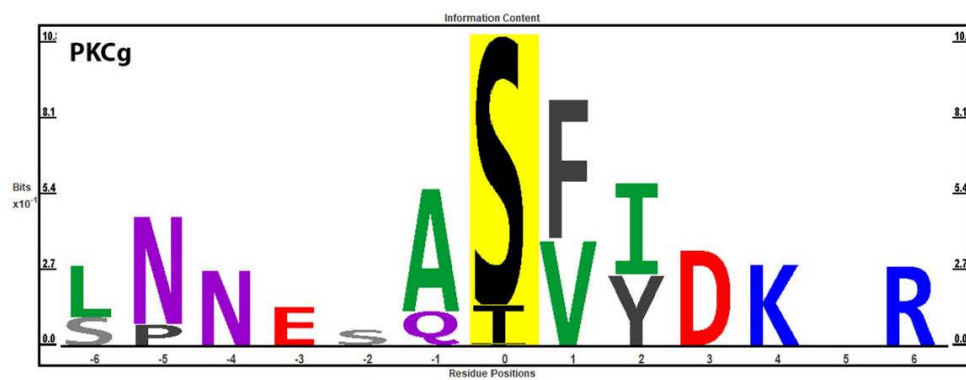
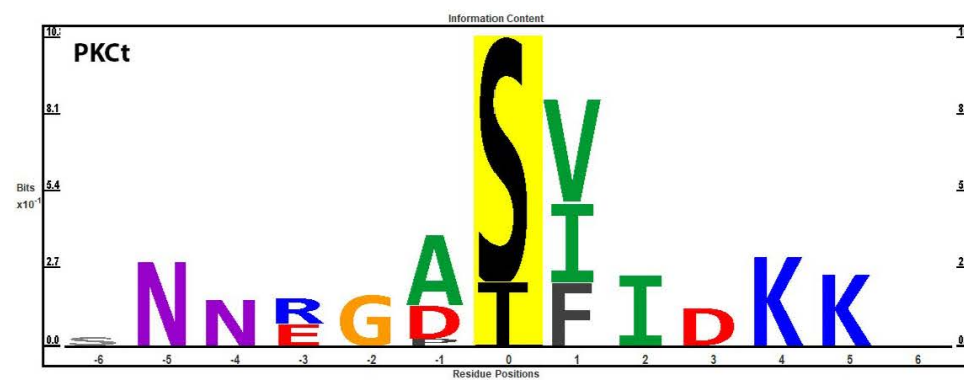
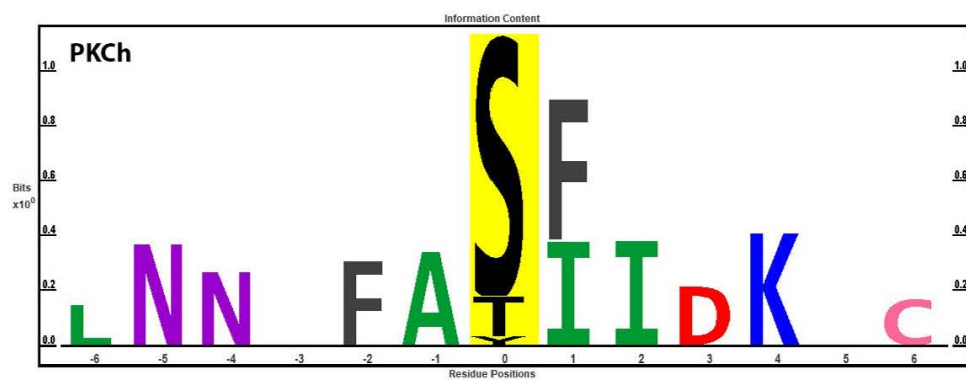


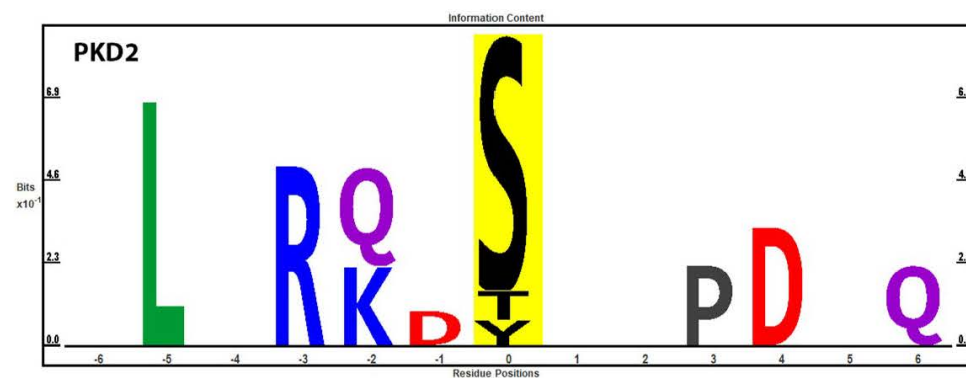
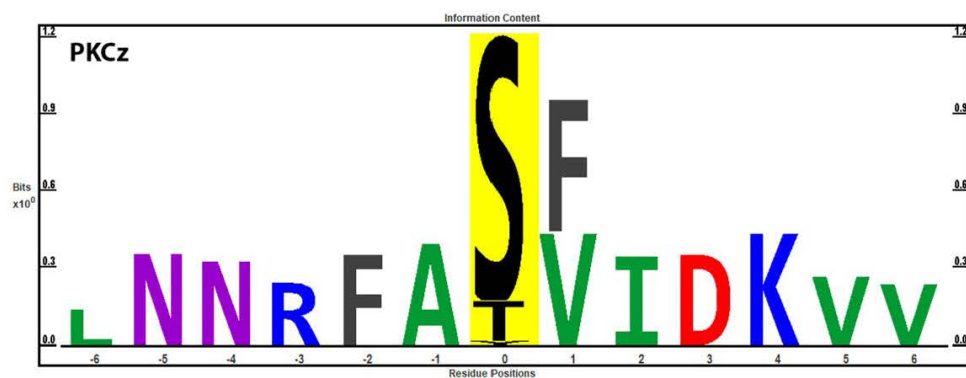
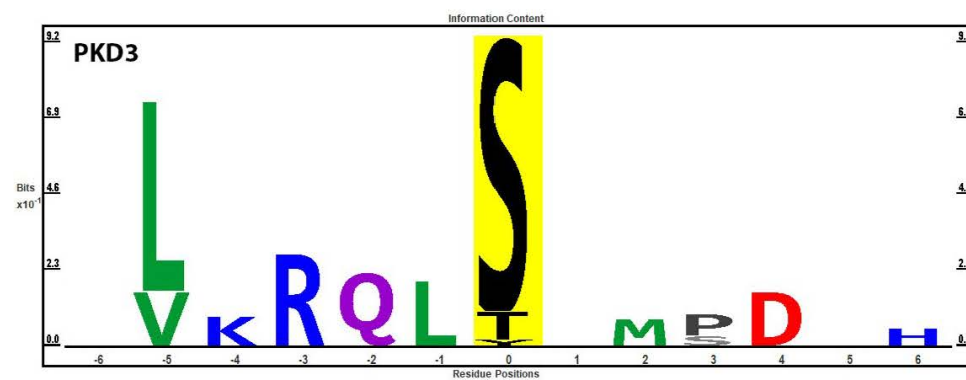
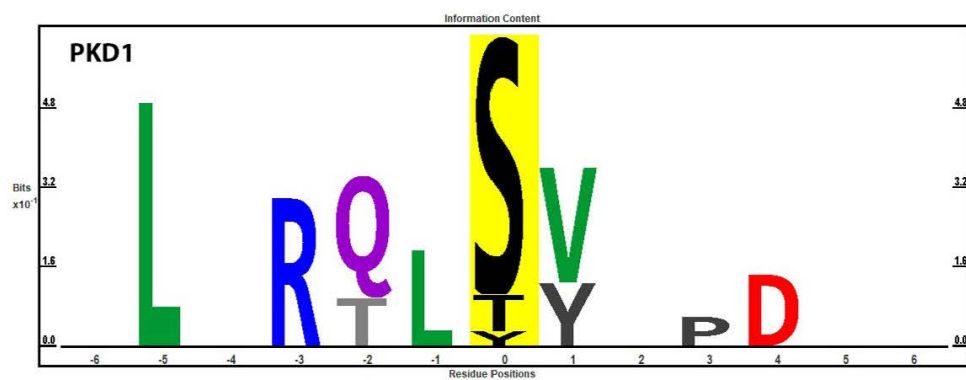


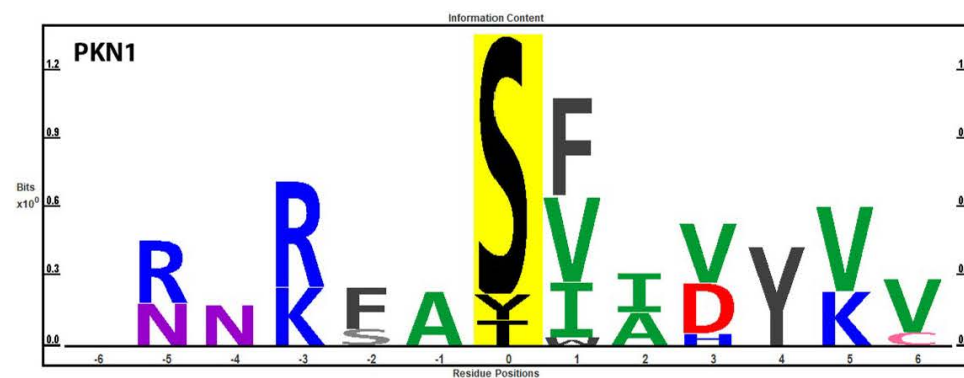
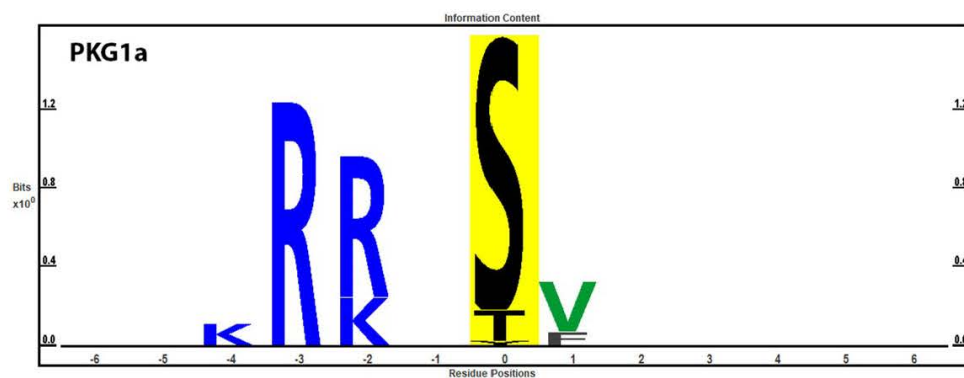
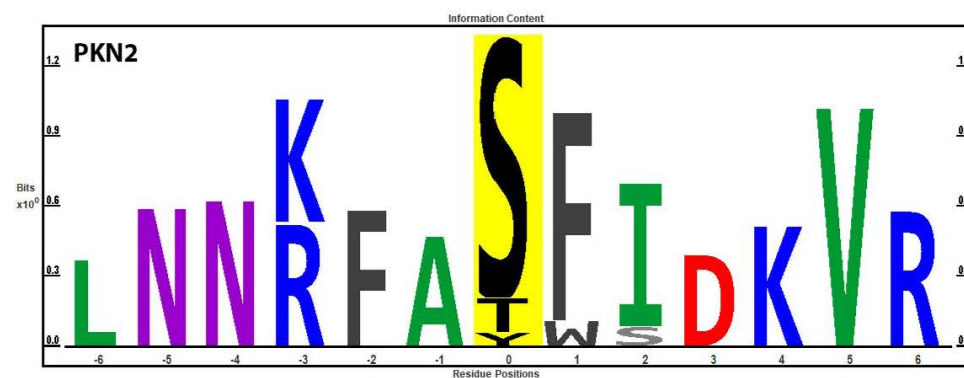
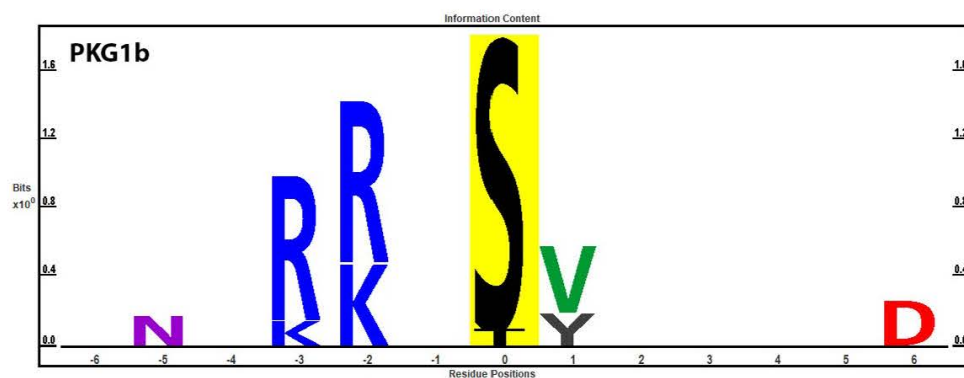


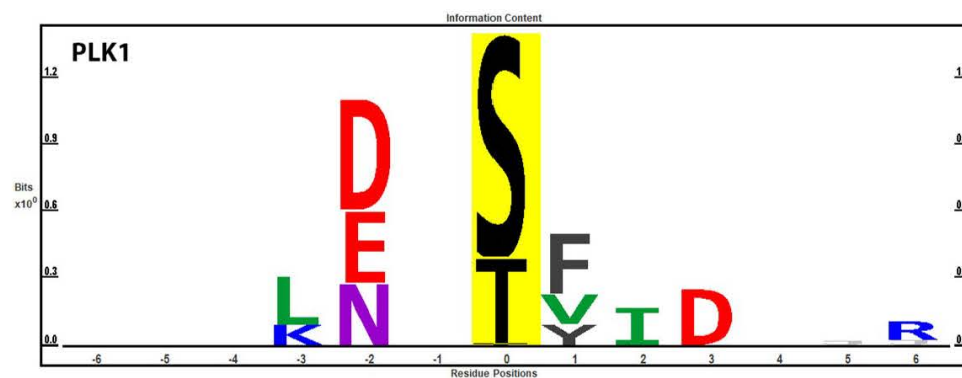
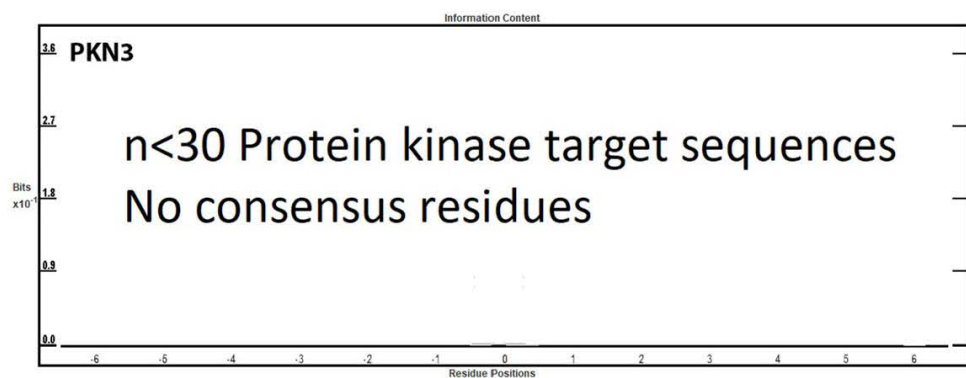
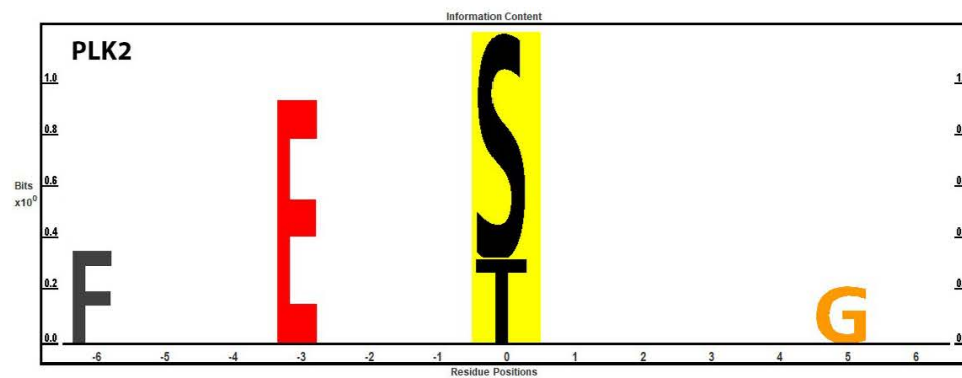
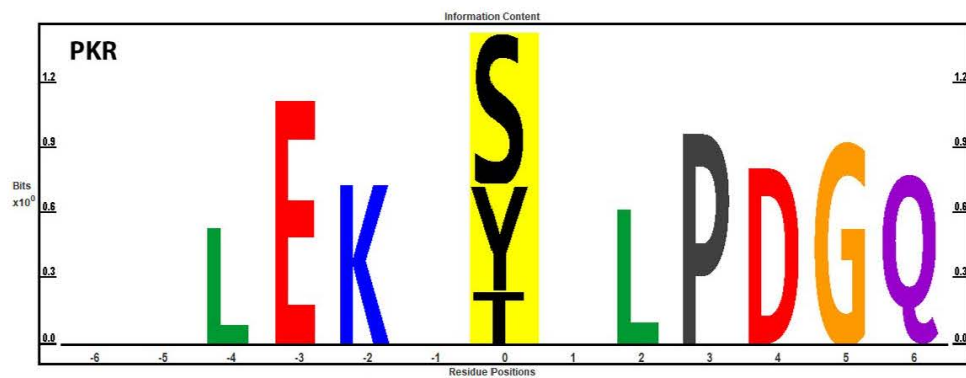


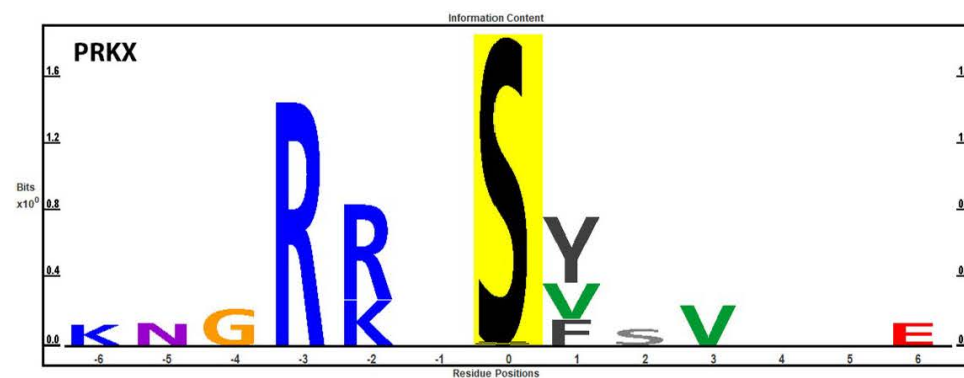
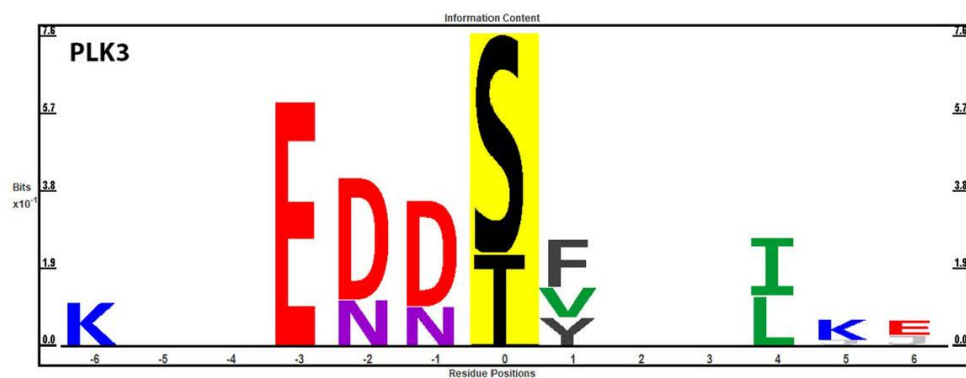
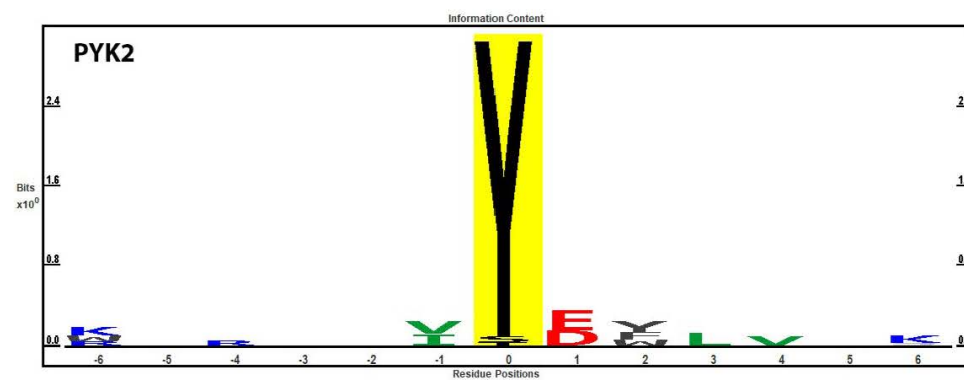
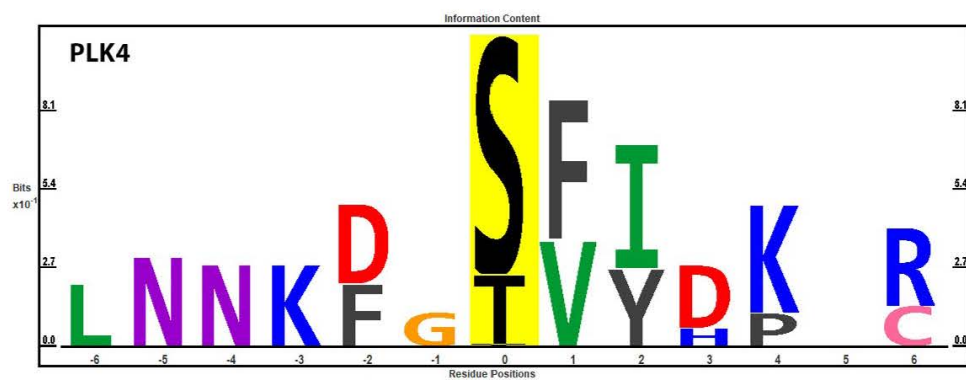




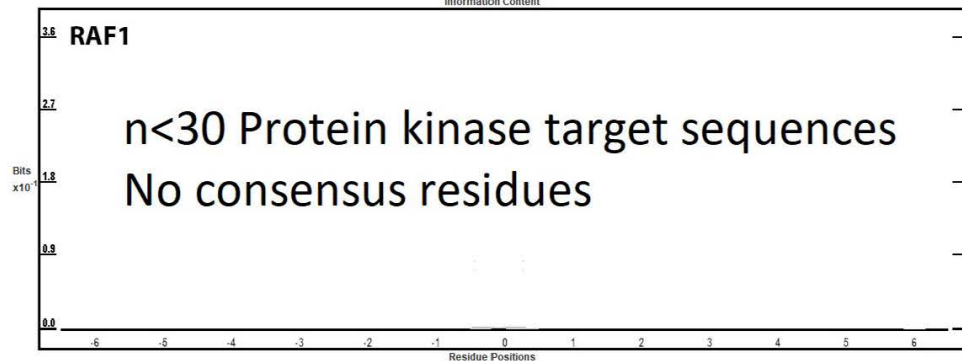




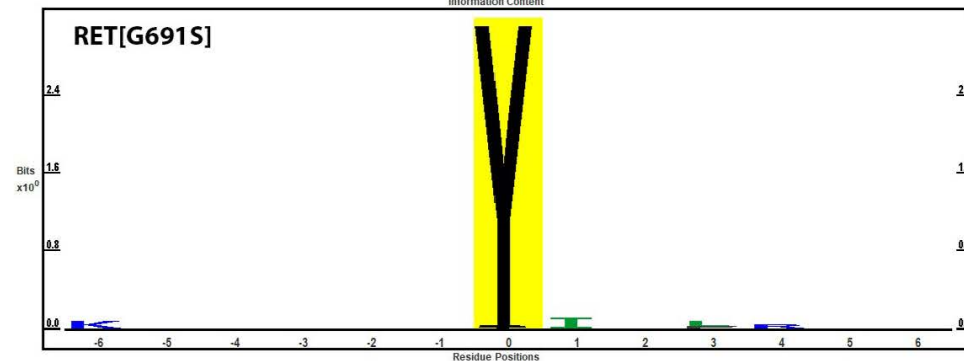




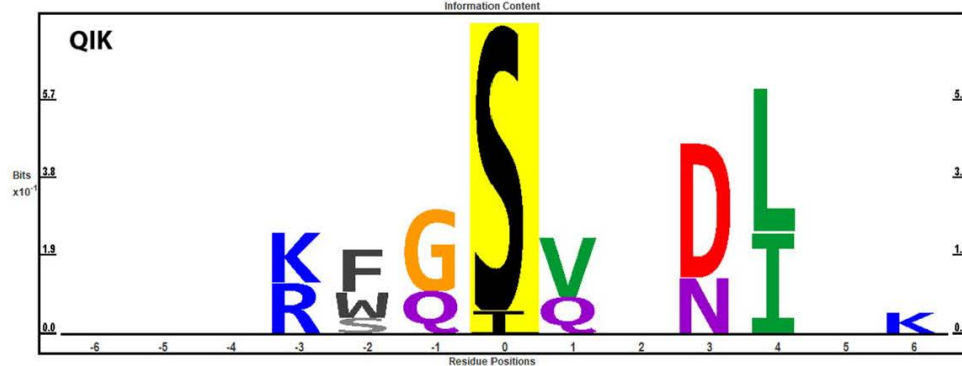
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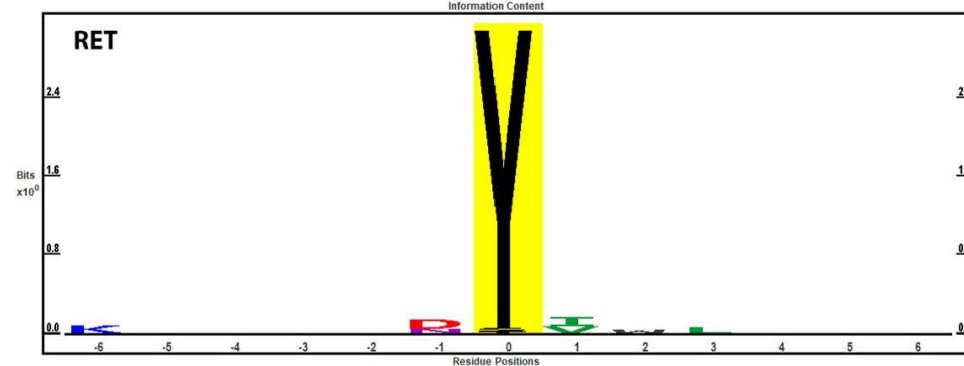
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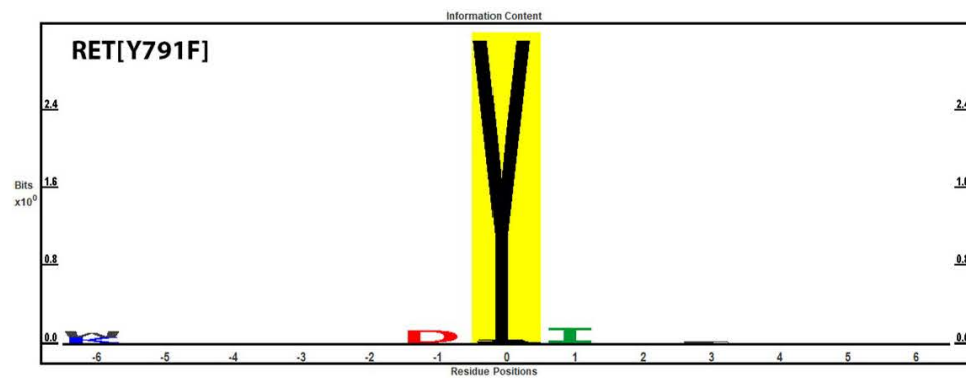
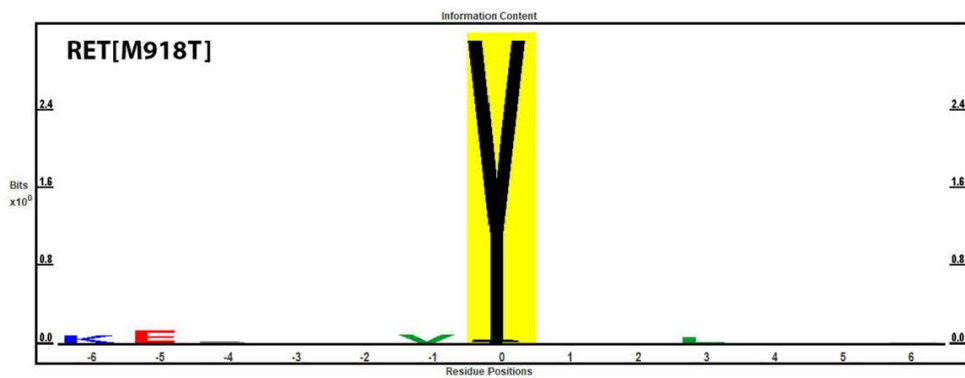
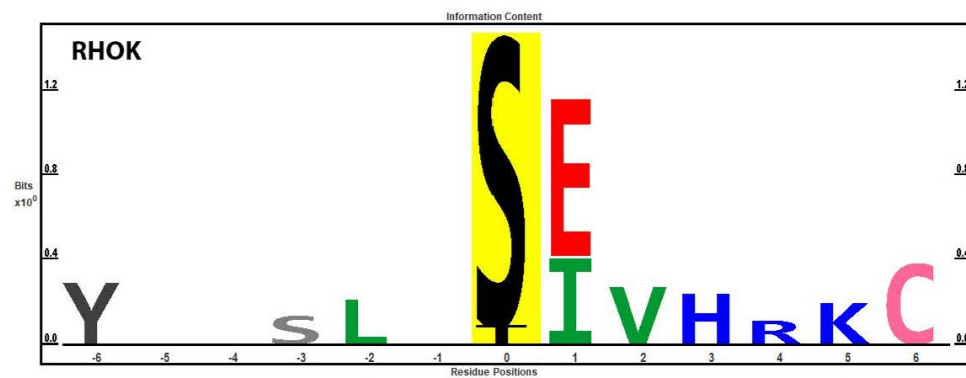
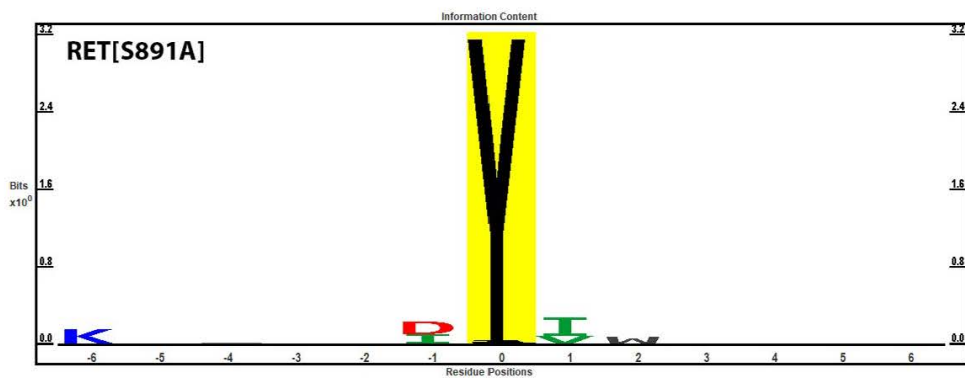


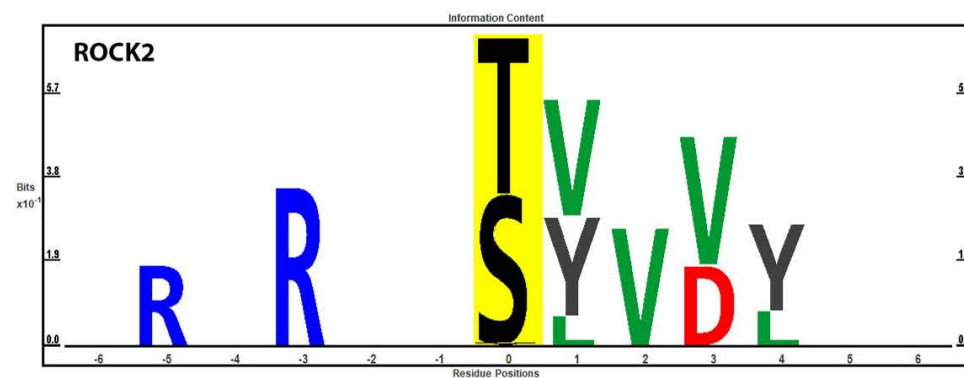
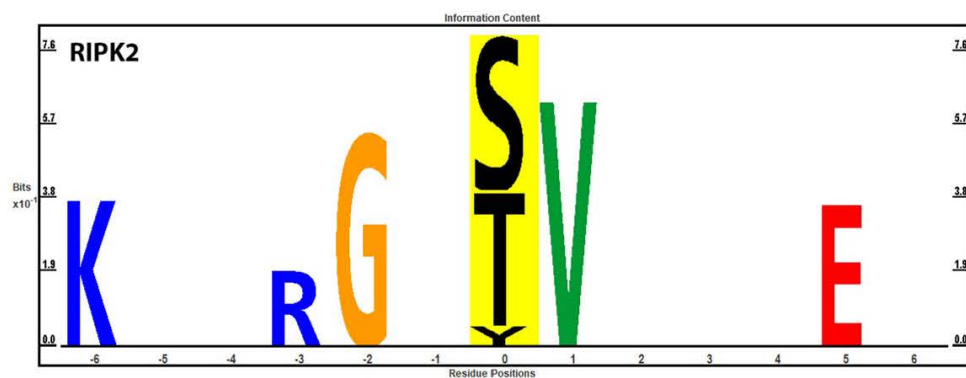
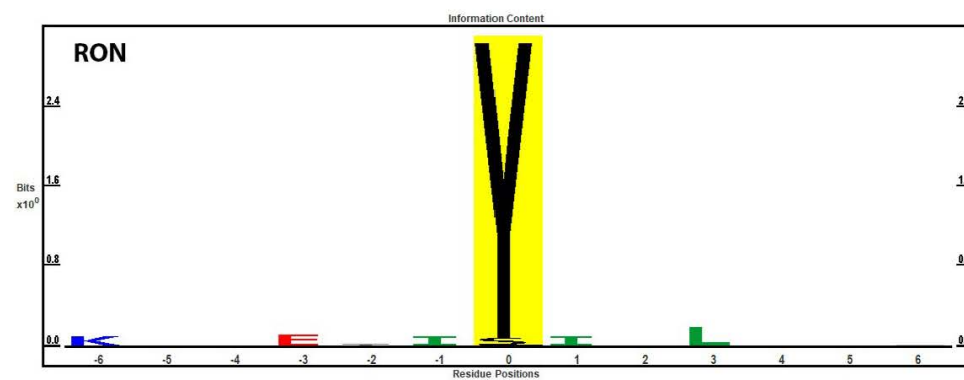
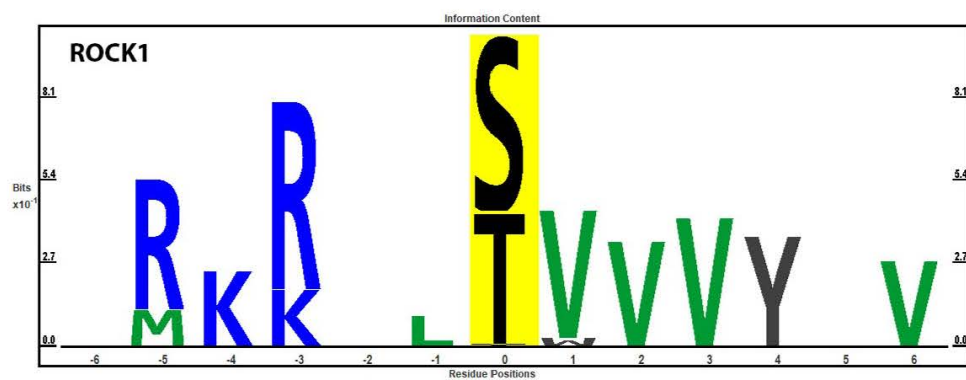
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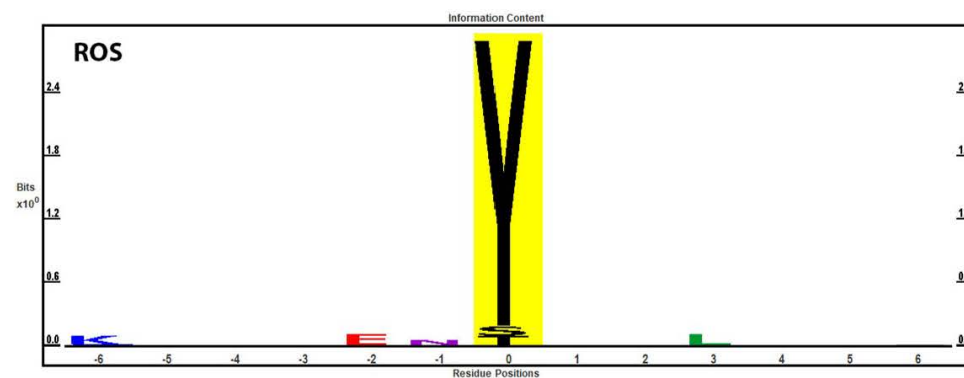
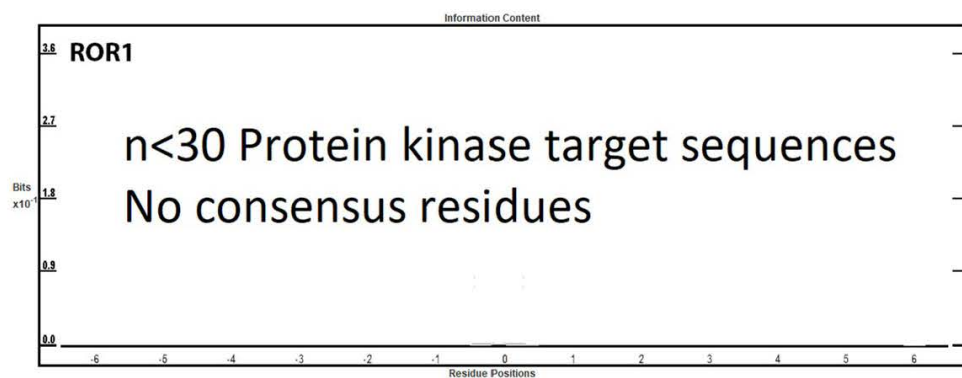
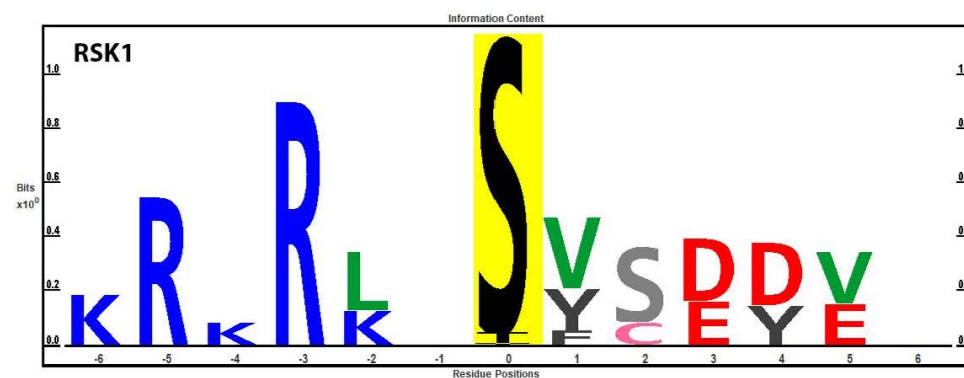
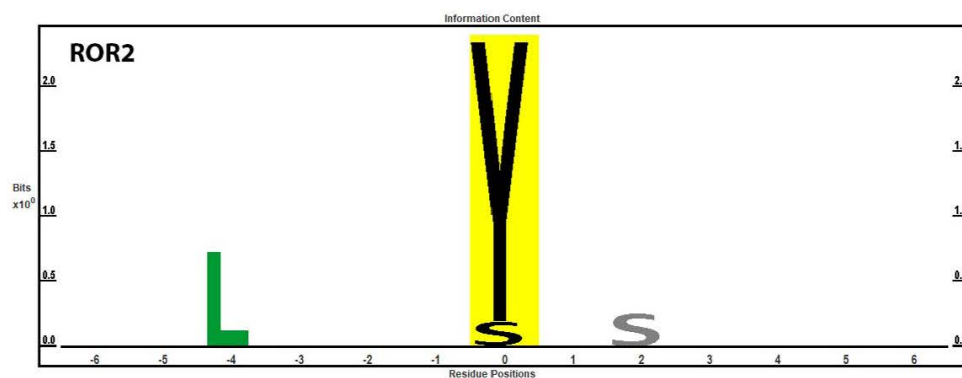


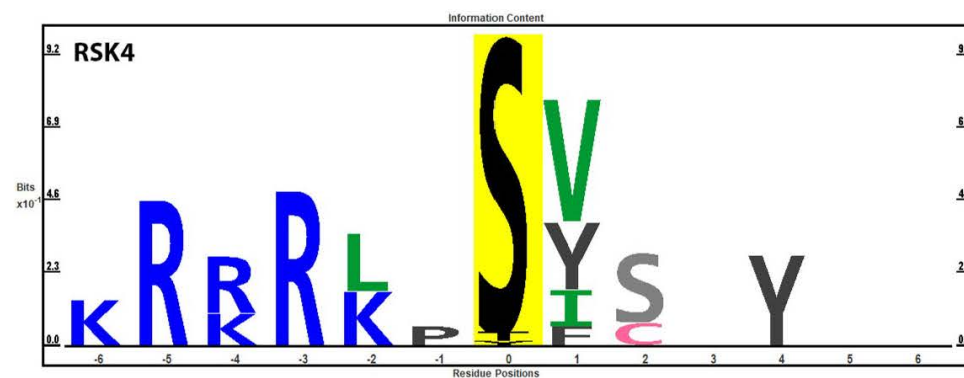
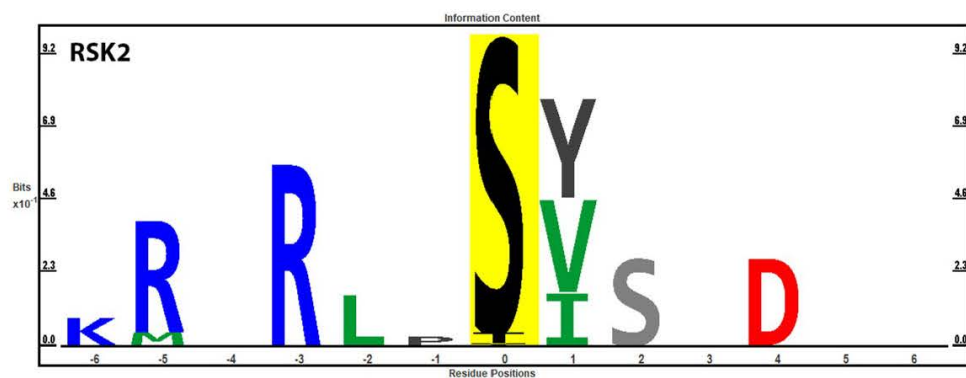
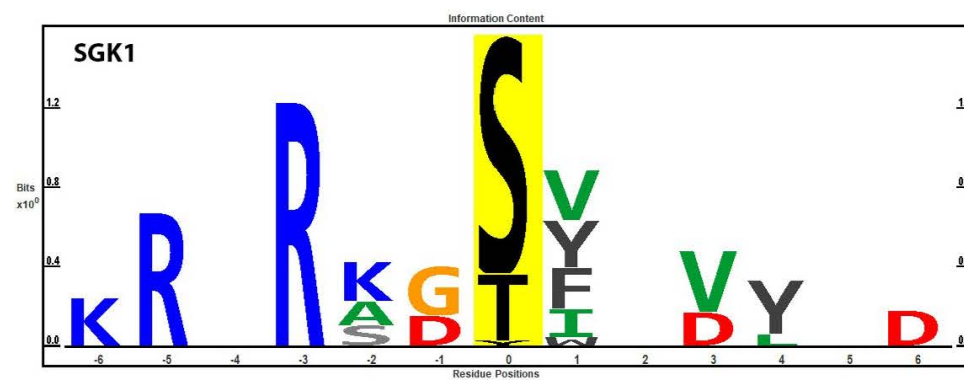
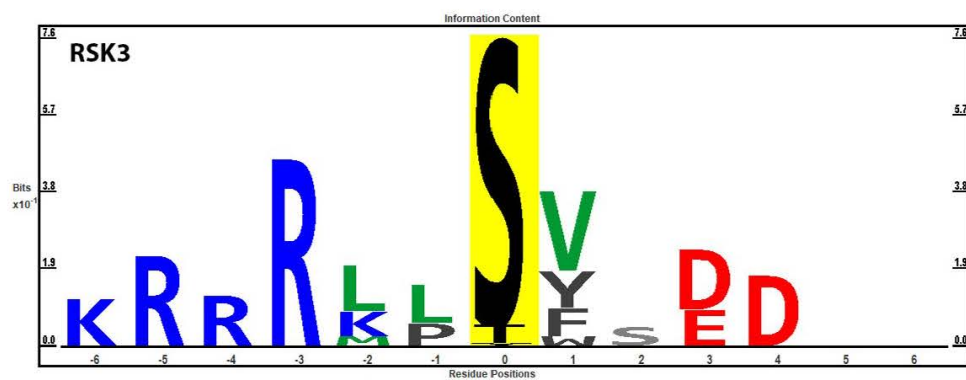
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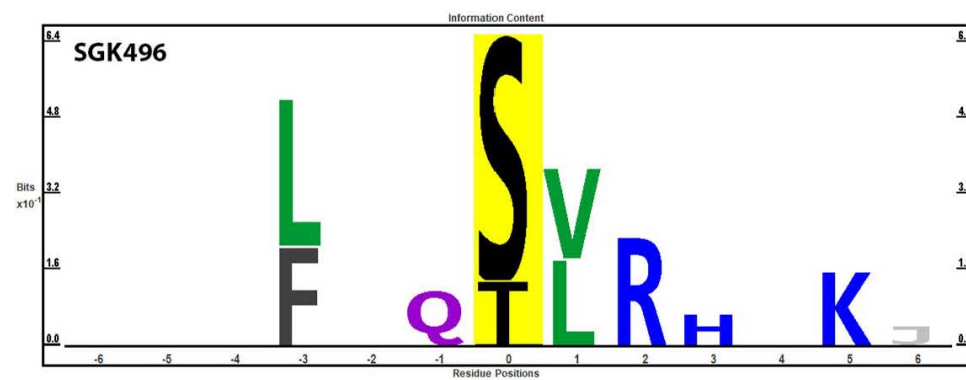
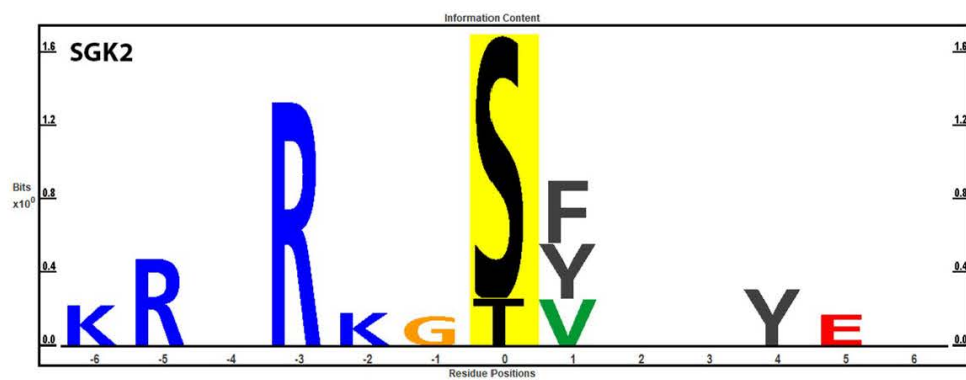
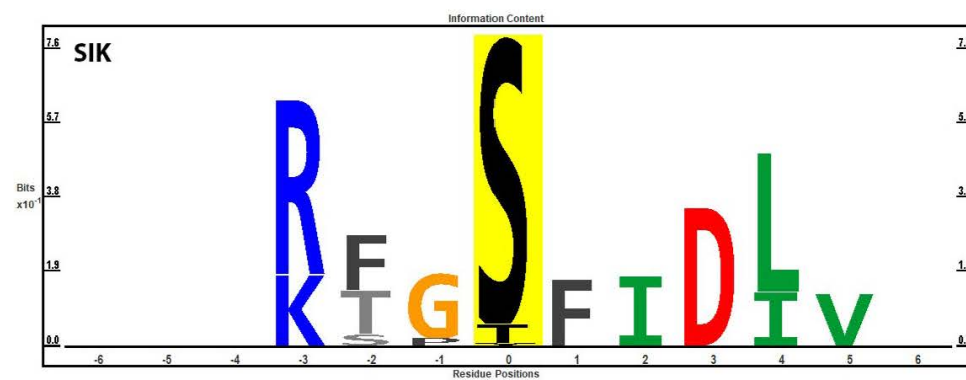
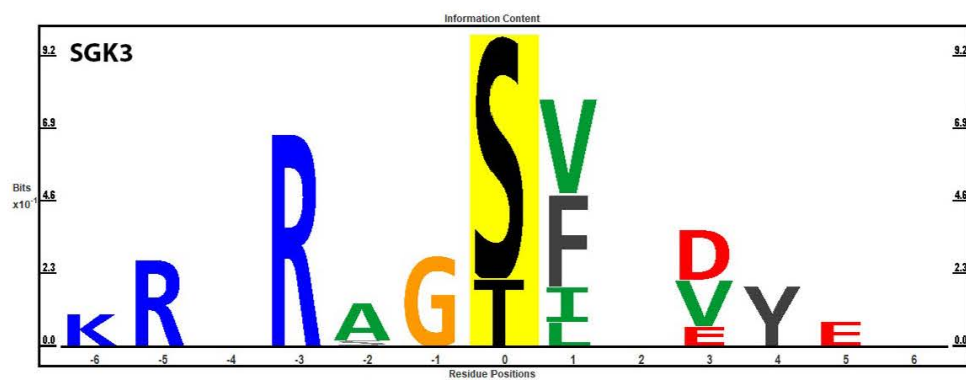


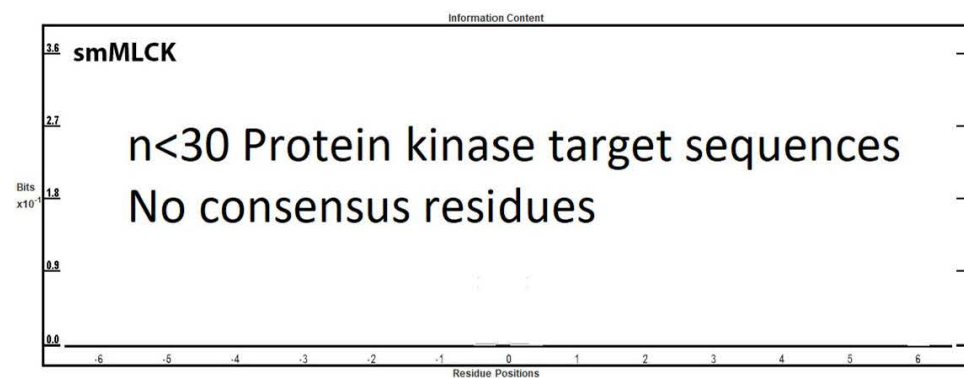
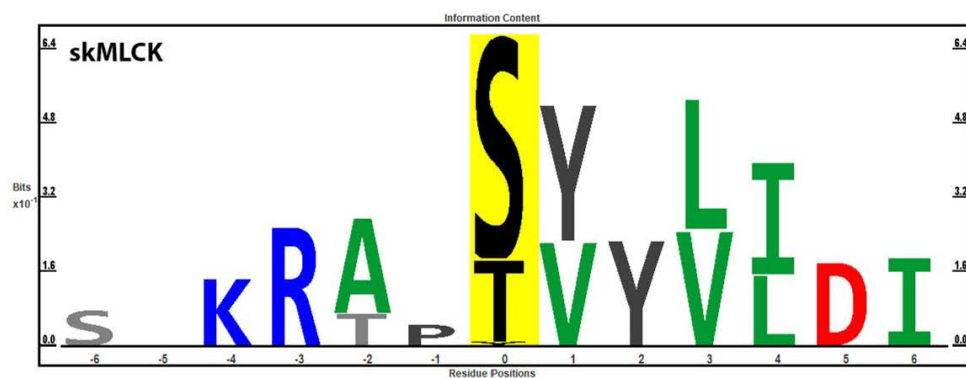
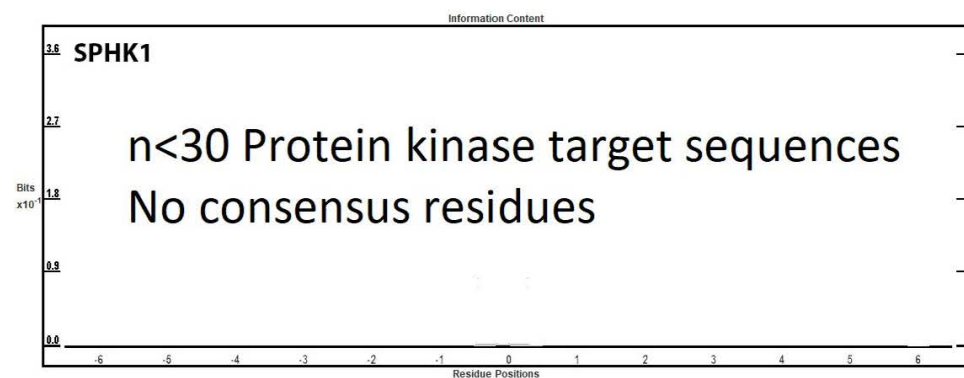
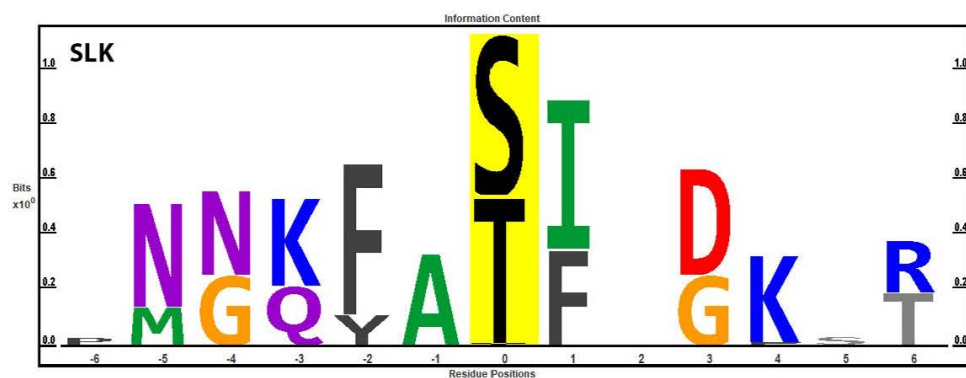


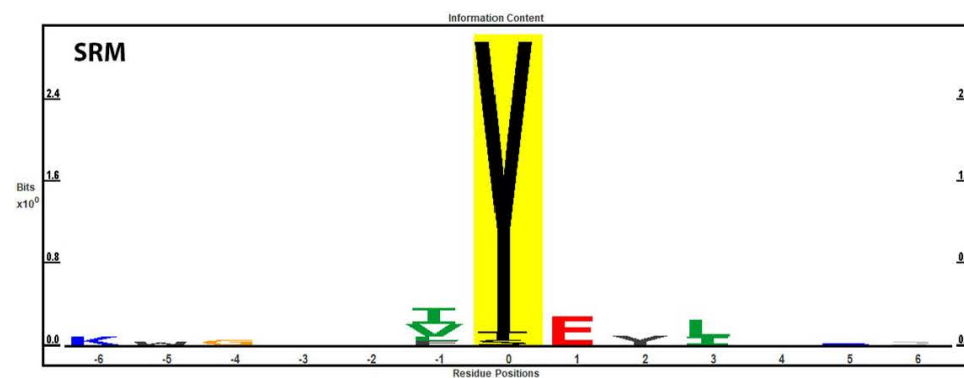
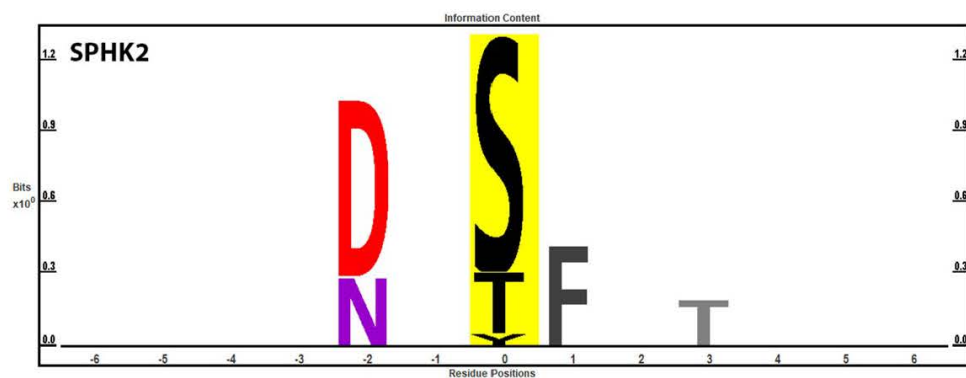
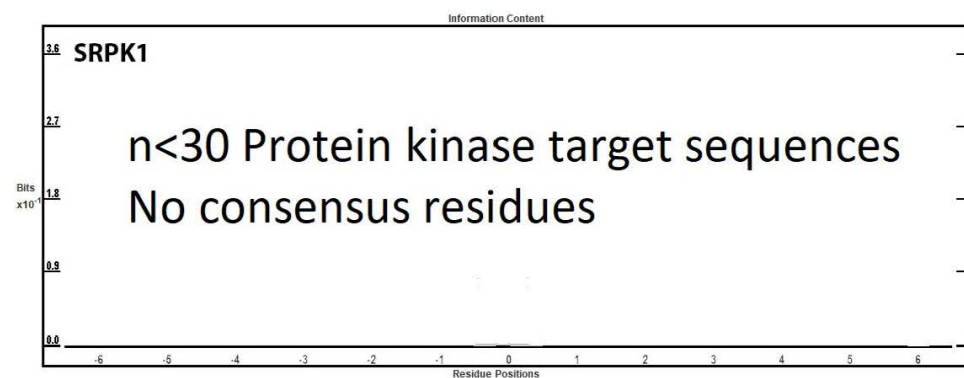
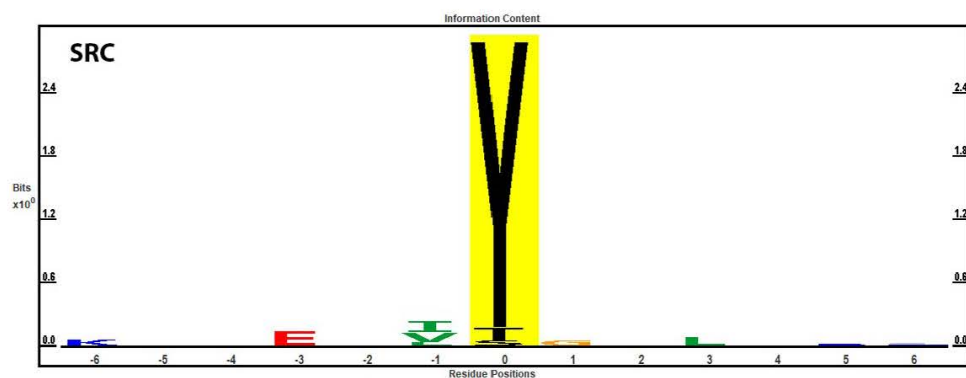


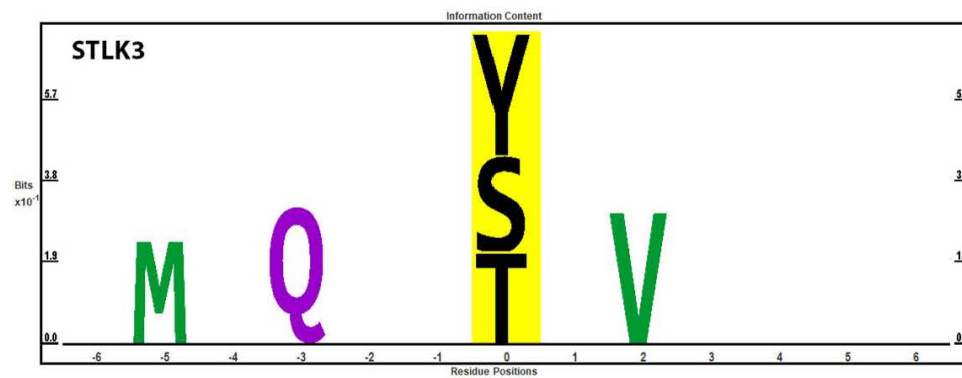
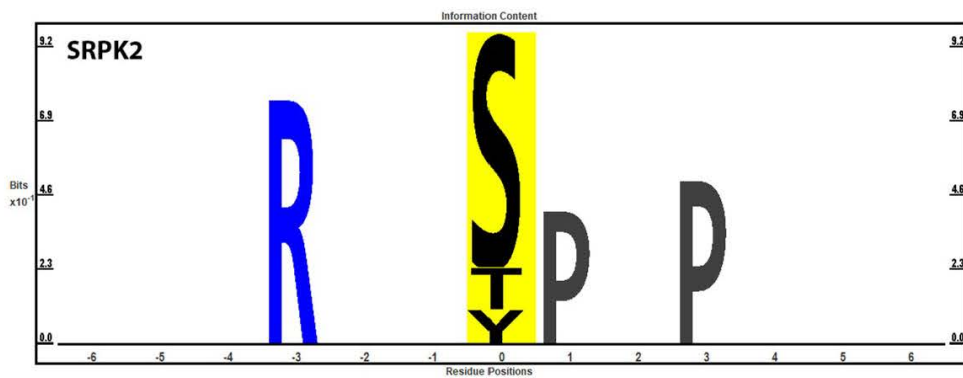
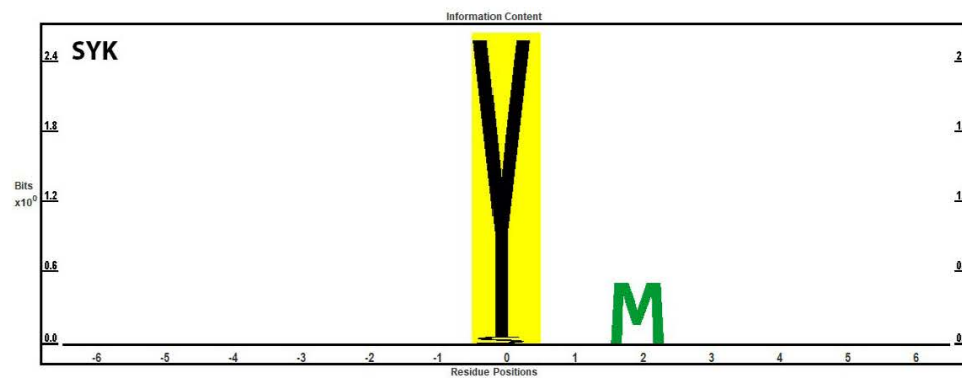
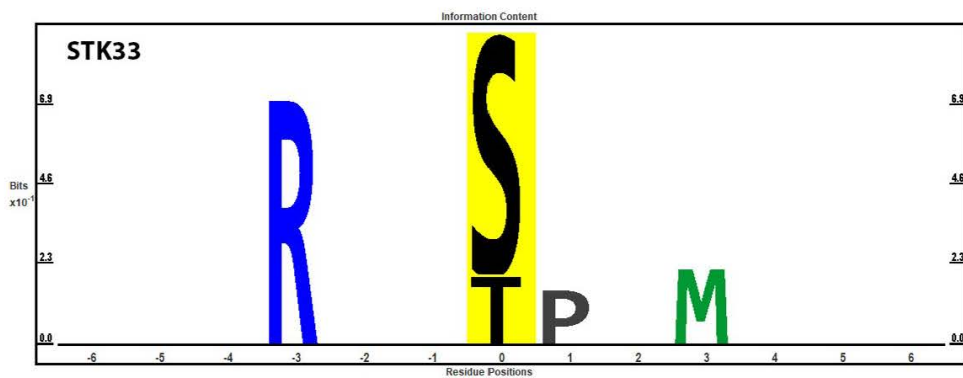


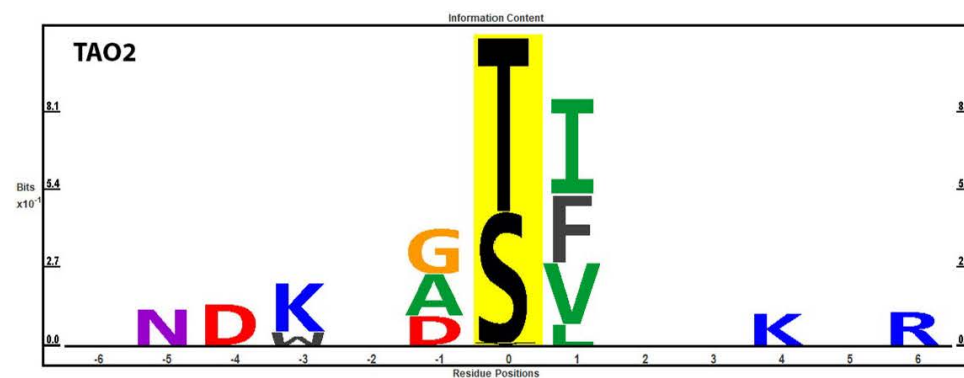
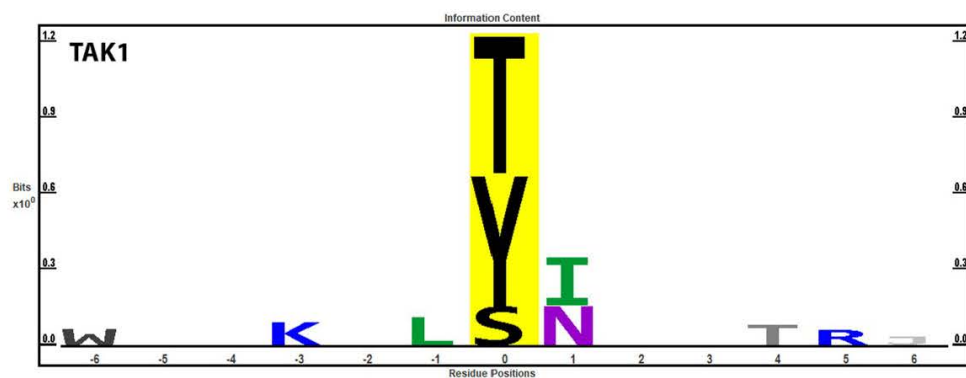
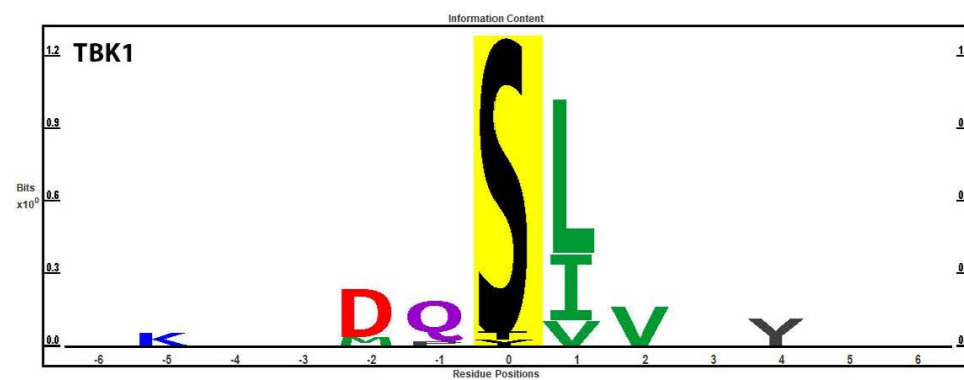
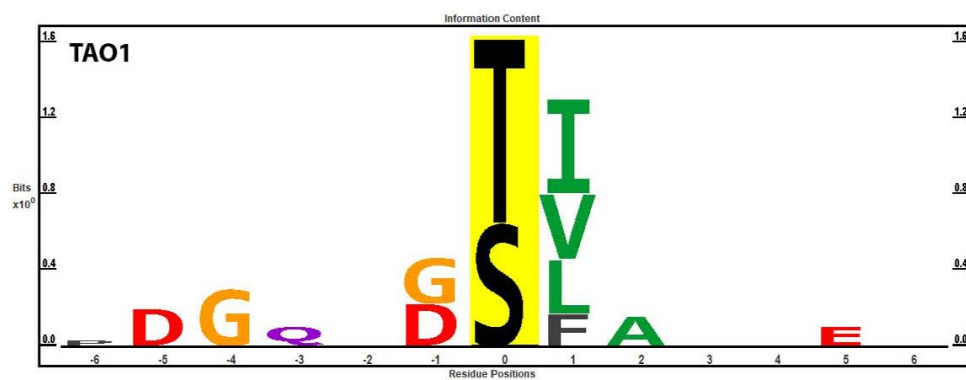


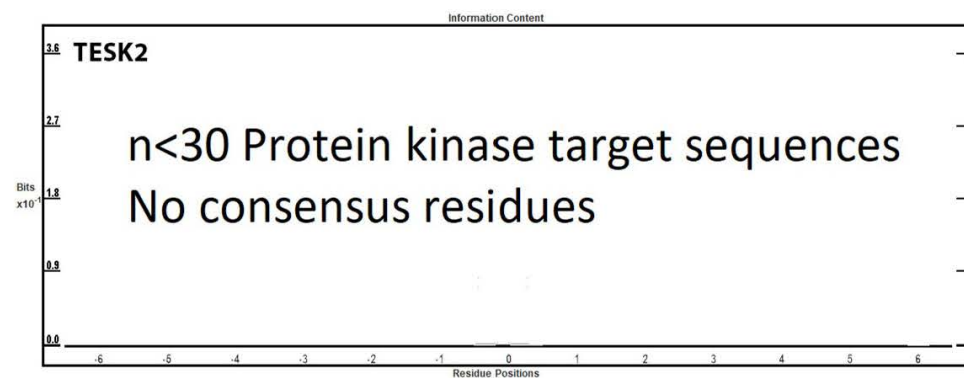
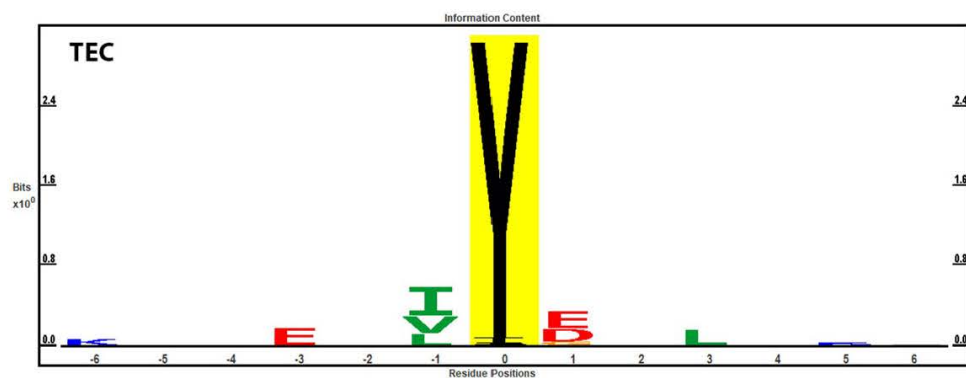
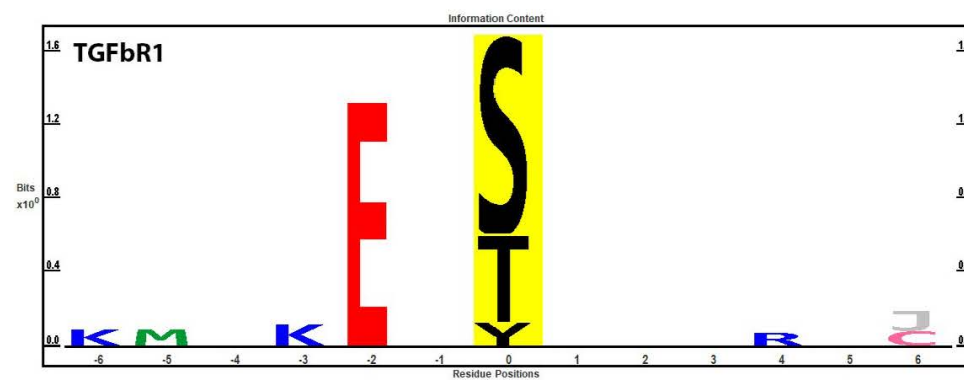
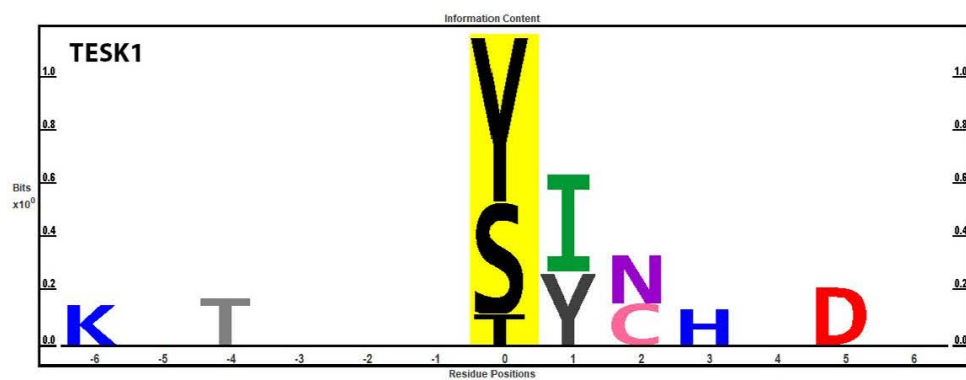


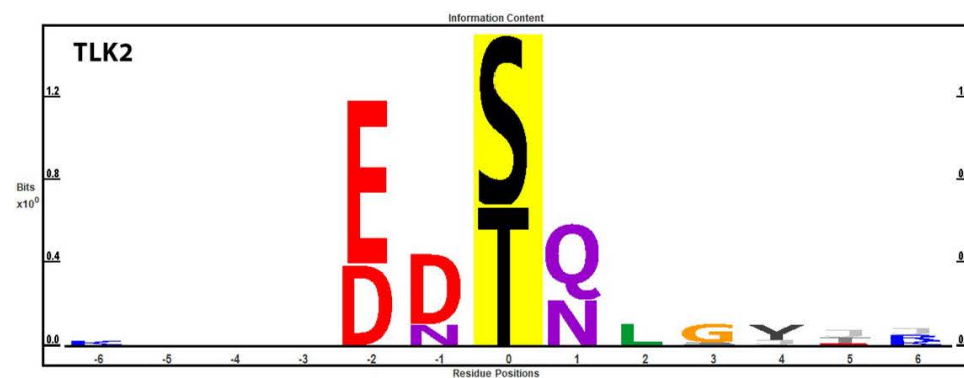
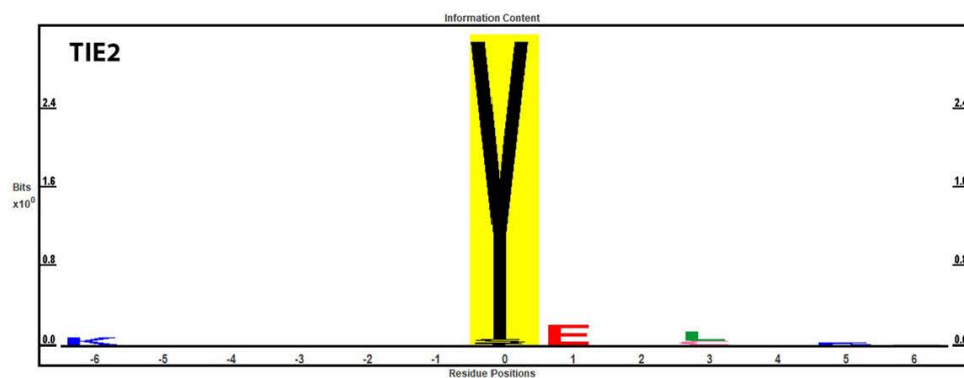
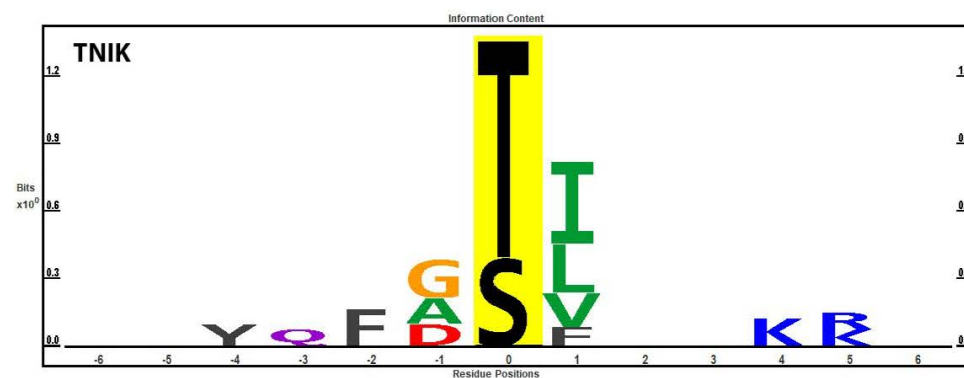
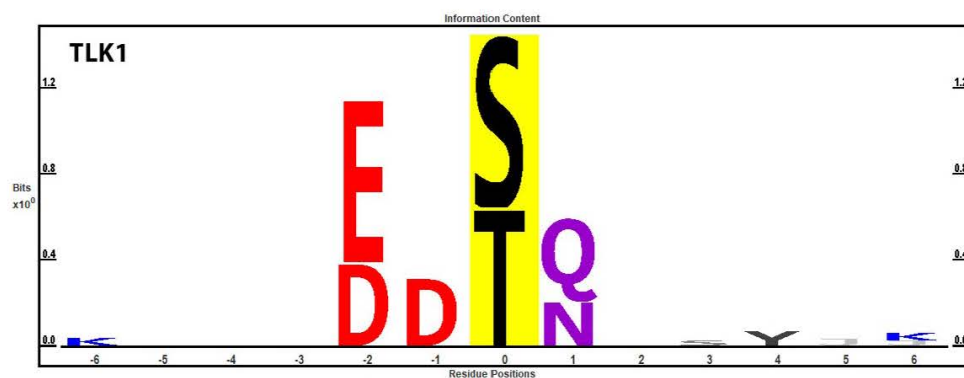


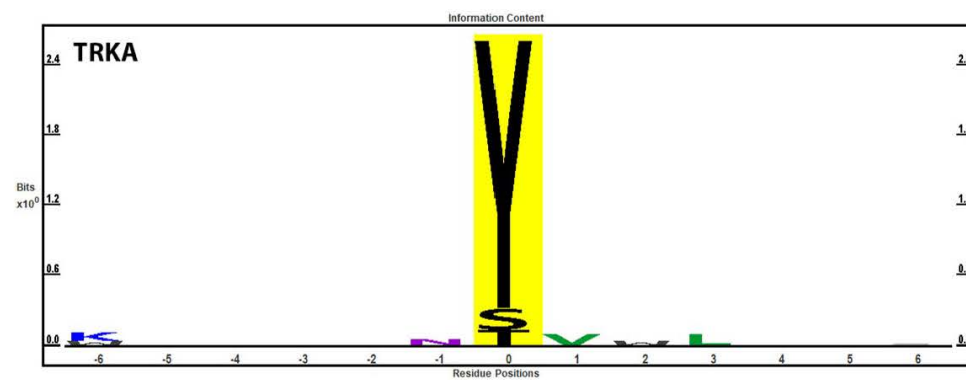
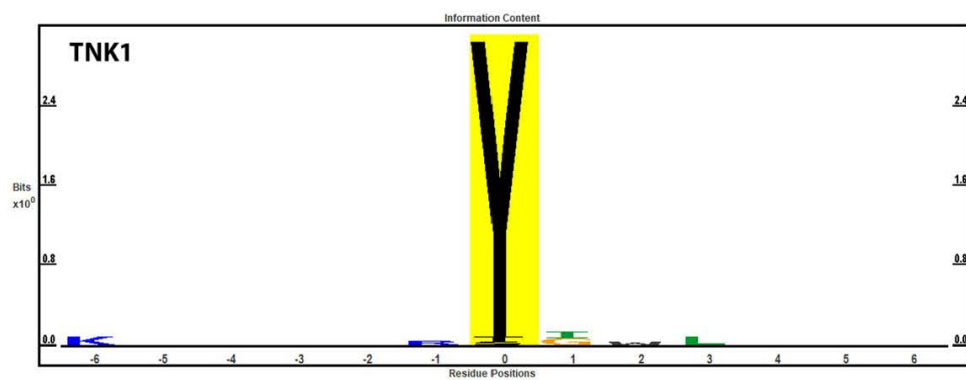
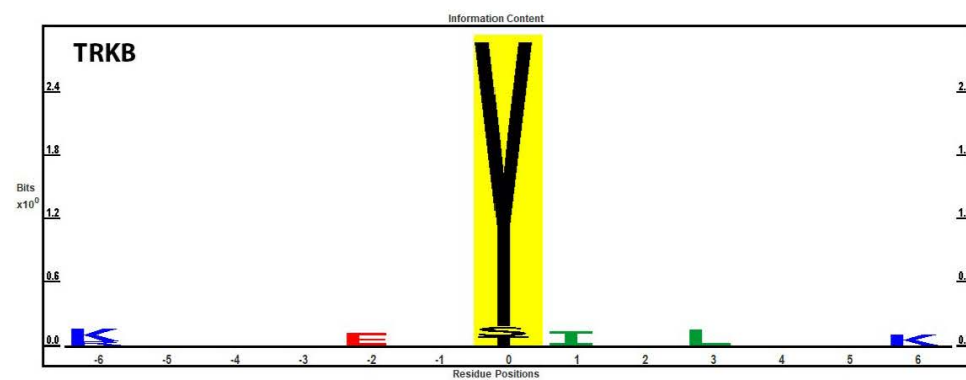
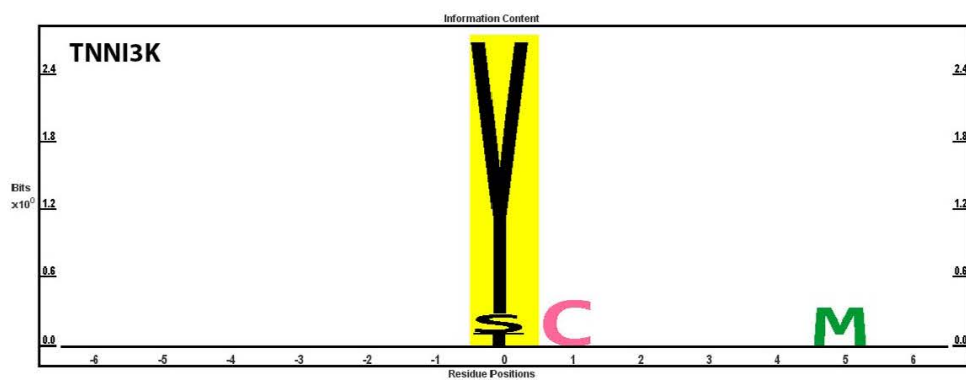


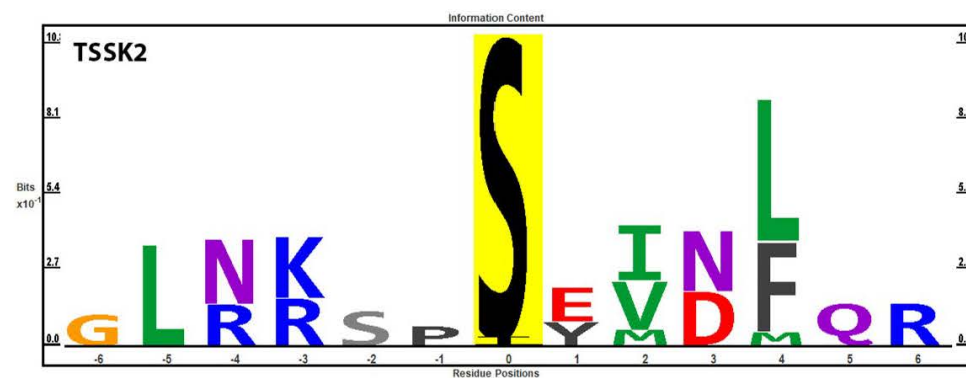
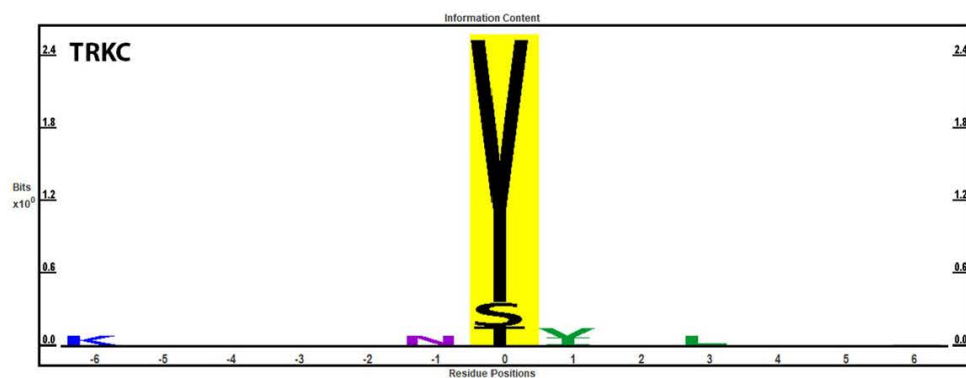
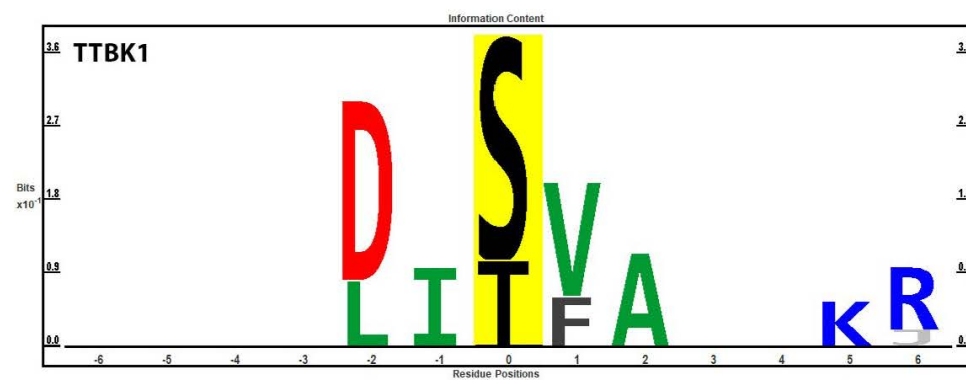
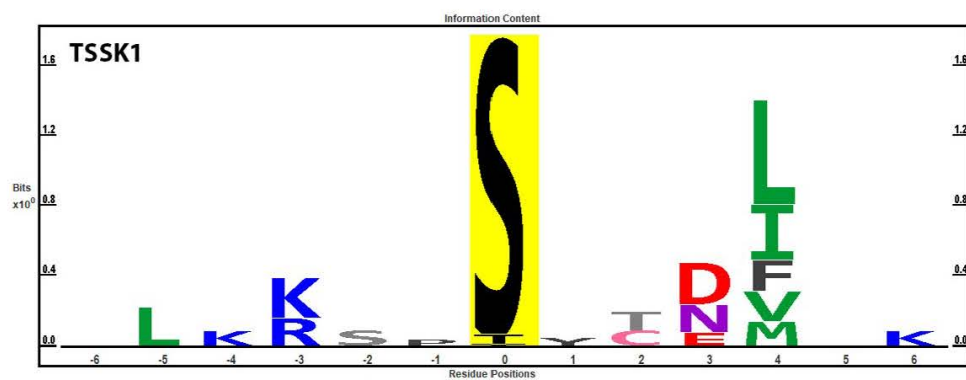


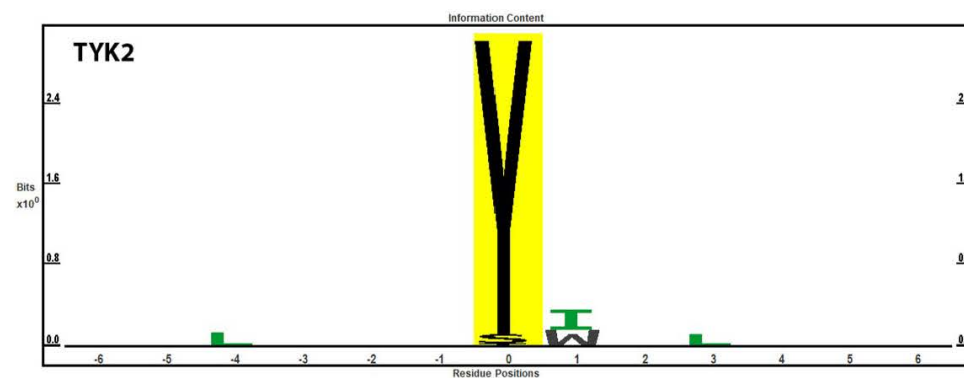
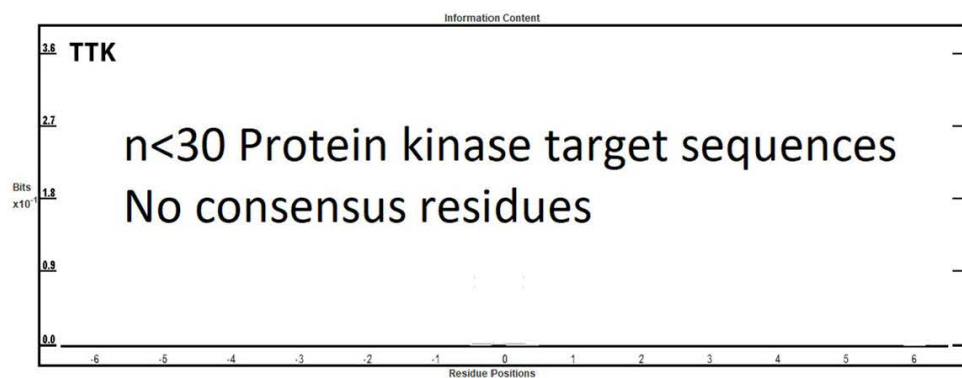
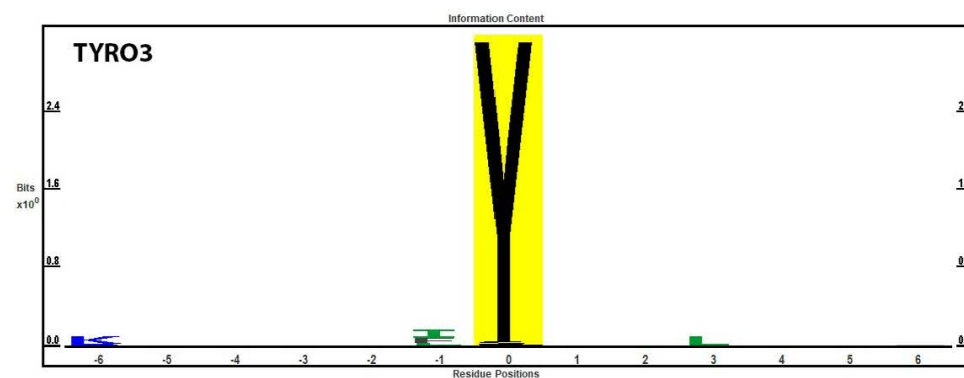
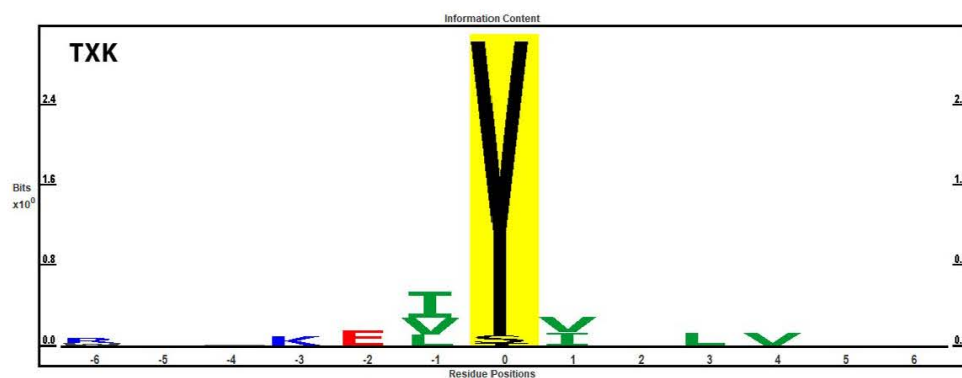




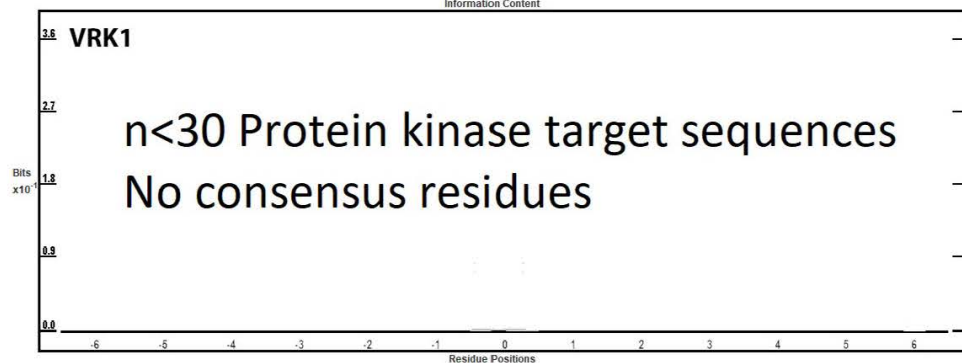




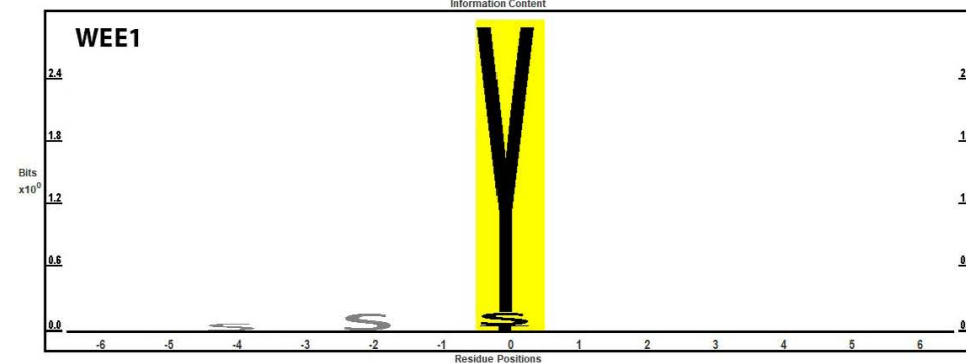




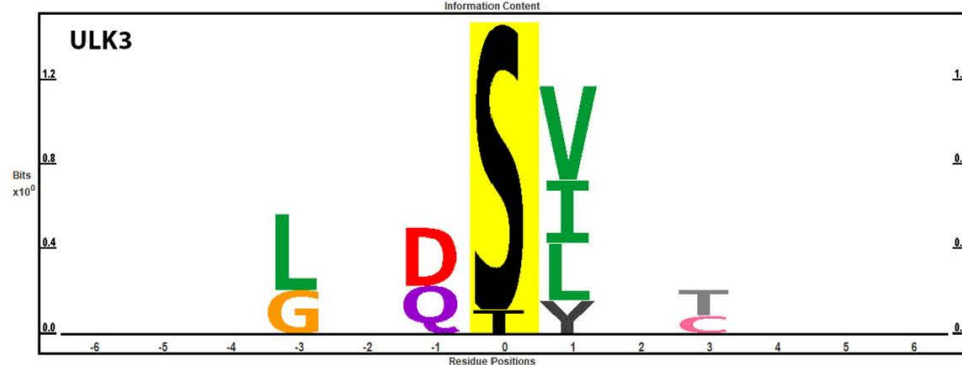
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