

Charge Compatibility Matrix (CCM)

	Asp, D	Glu, E	Cys, C	Asn, N	Phe, F	Gln, Q	Tyr, Y	Ser, S	Met, M	Thr, T	Ile, I	Gly, G	Val, V	Trp, W	Leu, L	Ala, A	Pro, P	His, H	Lys, K	Arg, R
pl	2.8	3.2	5.1	5.4	5.5	5.7	5.7	5.7	5.7	5.9	5.9	6.0	6.0	6.0	6.0	6.0	6.5	7.6	9.7	10.8

	Asp, D	Glu, E	Cys, C	Asn, N	Phe, F	Gln, Q	Tyr, Y	Ser, S	Met, M	Thr, T	Ile, I	Gly, G	Val, V	Trp, W	Leu, L	Ala, A	Pro, P	His, H	Lys, K	Arg, R
Asp, D	0.9	2.0	6.4	7.2	7.4	7.8	7.8	7.9	8.0	8.3	8.4	8.6	8.6	8.6	8.6	8.6	9.8	12.4	17.5	19.9
Glu, E	2.0	3.0	6.9	7.6	7.8	8.1	8.2	8.2	8.3	8.6	8.7	8.8	8.8	8.8	8.8	8.9	9.9	12.3	16.8	19.0
Cys, C	6.4	6.9	8.9	9.3	9.4	9.5	9.5	9.6	9.6	9.8	9.8	9.9	9.9	9.9	9.9	9.9	10.4	11.6	14.0	15.1
Asn, N	7.2	7.6	9.3	9.6	9.6	9.8	9.8	9.8	9.9	10.0	10.0	10.1	10.1	10.1	10.1	10.1	10.5	11.5	13.4	14.4
Phe, F	7.4	7.8	9.4	9.6	9.7	9.8	9.9	9.9	9.9	10.0	10.1	10.1	10.1	10.1	10.1	10.2	10.6	11.5	13.3	14.2
Gln, Q	7.8	8.1	9.5	9.8	9.8	10.0	10.0	10.0	10.0	10.1	10.2	10.2	10.2	10.2	10.2	10.2	10.6	11.4	13.1	13.9
Tyr, Y	7.8	8.2	9.5	9.8	9.9	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.2	10.2	10.3	10.6	11.4	13.1	13.8
Ser, S	7.9	8.2	9.6	9.8	9.9	10.0	10.0	10.0	10.1	10.2	10.2	10.2	10.2	10.2	10.2	10.3	10.6	11.4	13.0	13.8
Met, M	8.0	8.3	9.6	9.9	9.9	10.0	10.1	10.1	10.1	10.2	10.2	10.3	10.3	10.3	10.3	10.3	10.6	11.4	12.9	13.7
Thr, T	8.3	8.6	9.8	10.0	10.0	10.1	10.1	10.2	10.2	10.3	10.3	10.3	10.3	10.4	10.4	10.4	10.7	11.4	12.7	13.4
Ile, I	8.4	8.7	9.8	10.0	10.1	10.2	10.2	10.2	10.2	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.7	11.4	12.7	13.3
Gly, G	8.6	8.8	9.9	10.1	10.1	10.2	10.2	10.2	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.7	11.3	12.6	13.2
Val, V	8.6	8.8	9.9	10.1	10.1	10.2	10.2	10.2	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.7	11.3	12.6	13.2
Trp, W	8.6	8.8	9.9	10.1	10.1	10.2	10.2	10.2	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.7	11.3	12.6	13.2
Leu, L	8.6	8.8	9.9	10.1	10.1	10.2	10.2	10.2	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.7	11.3	12.6	13.2
Ala, A	8.6	8.9	9.9	10.1	10.2	10.2	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.7	11.3	12.5	13.1
Pro, P	9.8	9.9	10.4	10.5	10.6	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.8	11.2	11.8	12.1
His, H	12.4	12.3	11.6	11.5	11.5	11.4	11.4	11.4	11.4	11.4	11.4	11.3	11.3	11.3	11.3	11.3	11.2	10.8	10.1	9.8
Lys, K	17.5	16.8	14.0	13.4	13.3	13.1	13.1	13.0	12.9	12.7	12.7	12.6	12.6	12.6	12.6	12.5	11.8	10.1	6.8	5.2
Arg, R	19.9	19.0	15.1	14.4	14.2	13.9	13.8	13.8	13.7	13.4	13.3	13.2	13.2	13.2	13.2	13.1	12.1	9.8	5.2	3.1

pl: Isoelectric Point

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