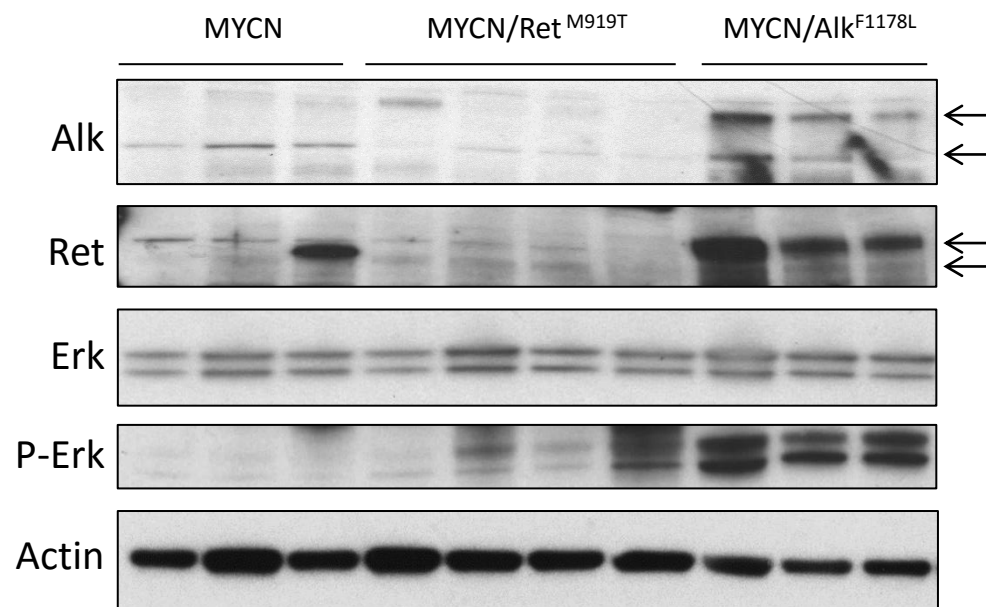
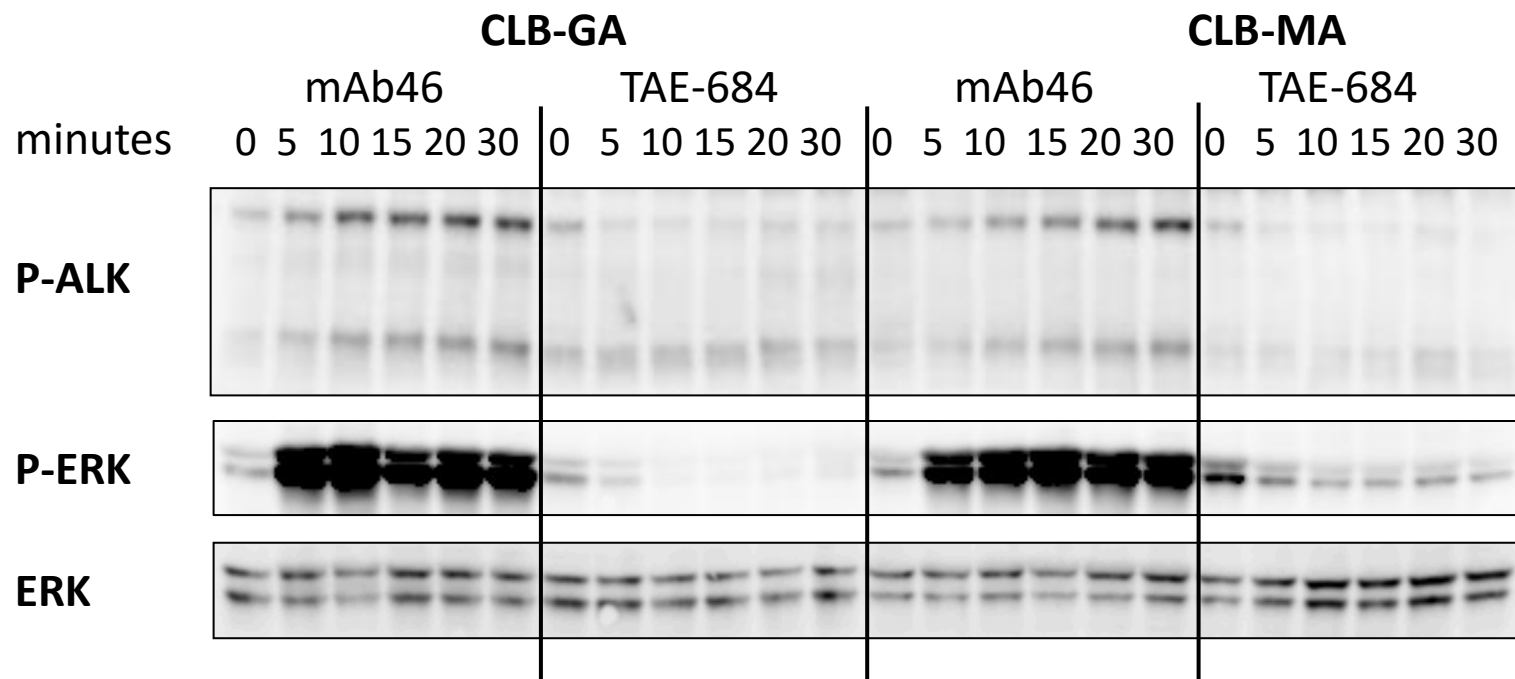
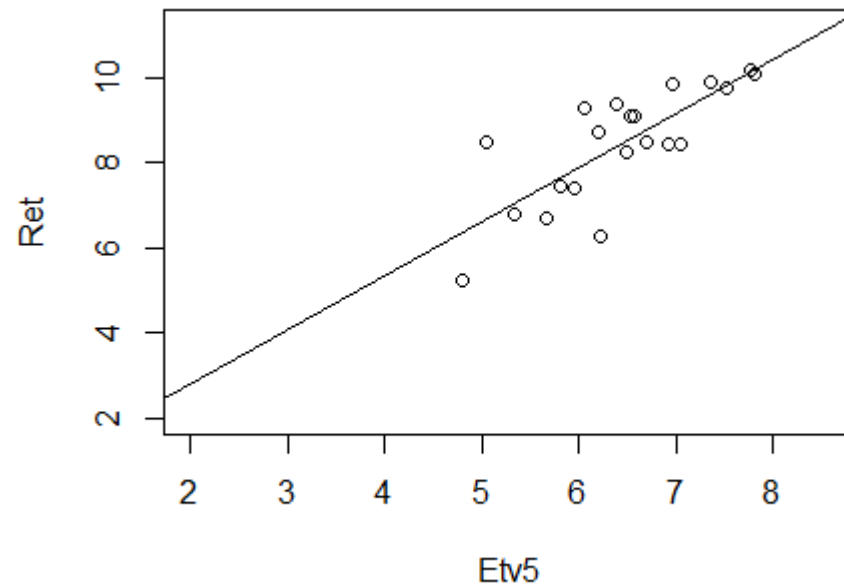




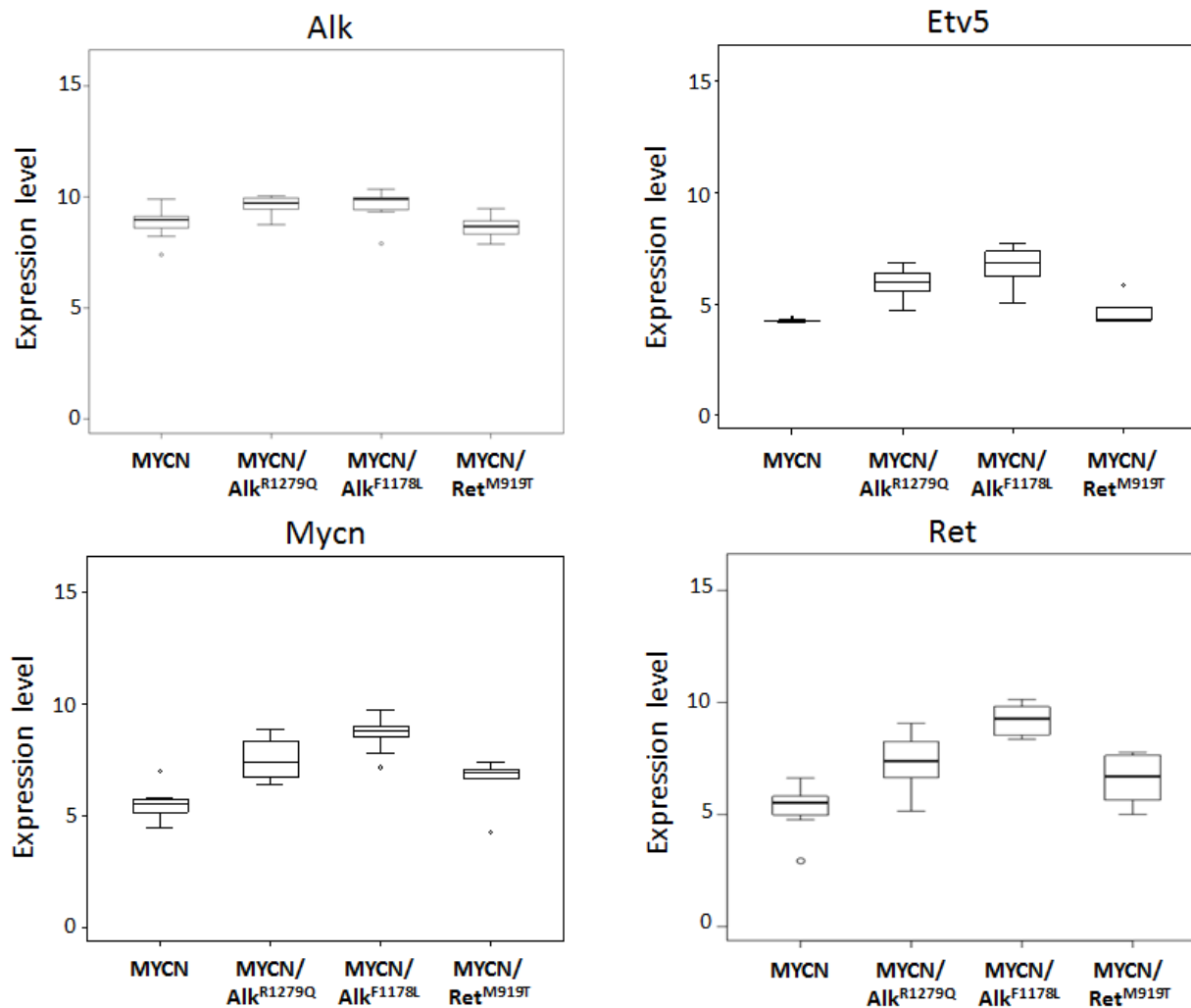
Supplementary figure 1: The expression levels of total Alk (CST #3633), total Ret (EPR2871, Abcam), total Erk (CST #9102) and phospho-Erk (CST #9106) were investigated by Western blot in MYCN (n=3), MYCN/Ret^{M919T} (n=4) and MYCN/Alk^{F1178L} mouse tumors (n=3). Actin was used as a standard.



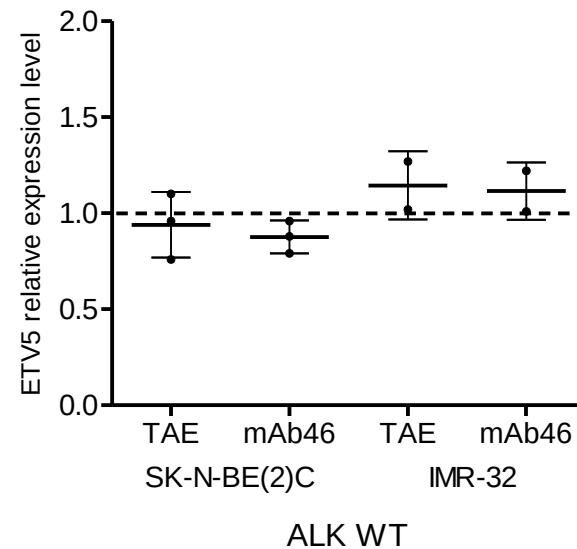
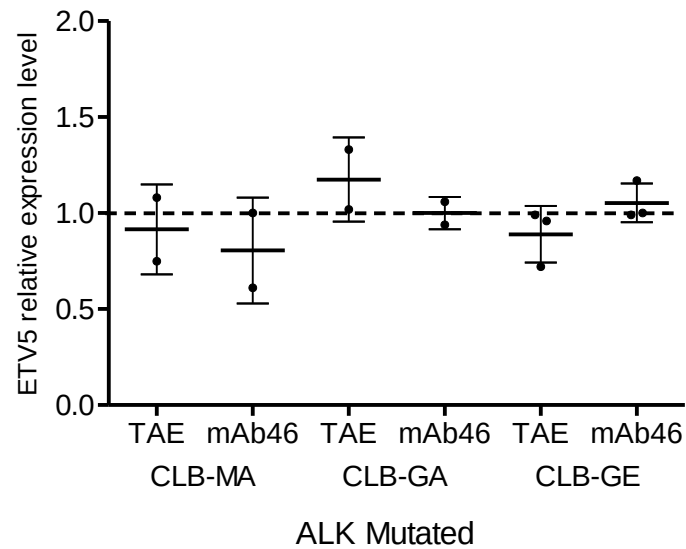
Supplementary figure 2: Kinetics of ALK and ERK phosphorylation upon ALK modulation in CLB-GA and CLB-MA cell lines. Western blotting of P-ALK (Y1604), P-ERK 1/2 (T202/Y204), and ERK in CLB-GA (ALK R1275Q) and CLB-MA (ALK F1174L) cell lines treated with 300 nM TAE-684 or 1 mg/mL mAb46 for 5, 10, 15, 20 or 30 minutes.



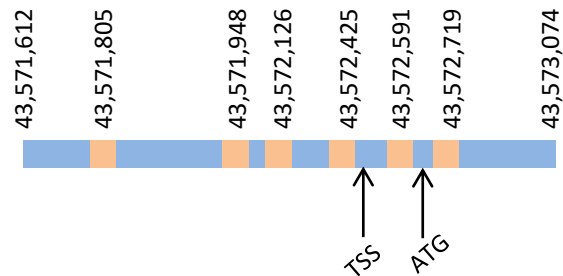
Supplementary figure 3: Correlation between *Etv5* and *Ret* expression in murine MYCN/Alk^{mut} tumors. Expression data (log2) were generated with Affymetrix Mouse Genome 430 2.0 arrays. Each point represents a tumor. We observed a correlation coefficient of 0.78 with a p-value < 0.001.



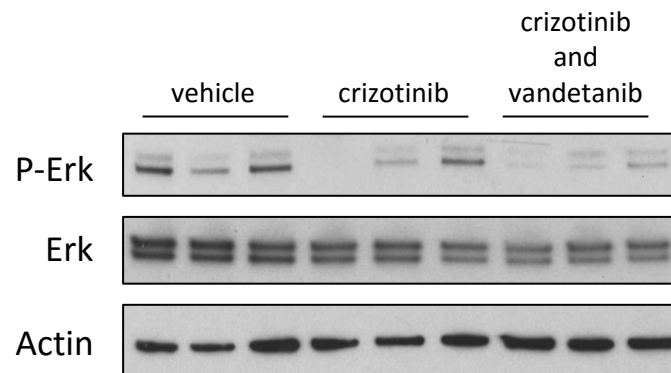
Supplementary figure 4: Expression levels of *Alk*, *Etv5*, *Mycn* and *Ret* in the 4 groups of murine tumors (MYCN, MYCN/*Alk*^{R1279Q}, MYCN/*Alk*^{F1178L} and MYCN/*Ret*^{M919T}).



Supplementary figure 5: Expression levels of *ETV5* mRNA after 30 minutes of treatment with ALK tyrosine kinase inhibitor TAE684 at 300 nM or with the agonist mAb46 antibody at 1 μ g/mL. Results are shown as relative expression levels compared to the untreated cell lines.

A**B**

Supplementary figure 6: A. ETV5 matrix determined according to Wei et al. (28). **B.** ETV5 consensus binding sites revealed by analysis of the RET promoter (chr10: 43,571,612-43,573,074) with the FIMO tool (27) with a p-value less than 0.001 using this ETV5 matrix. TSS: transcription start site.



Supplementary figure 7: The expression levels of phospho-Erk (CST #9106) and total Erk (CST #9102) were investigated by Western blot in tumors collected when mice were sacrificed after treatment with the vehicle, crizotinib only or crizotinib and vandetanib. Actin was used as a standard.