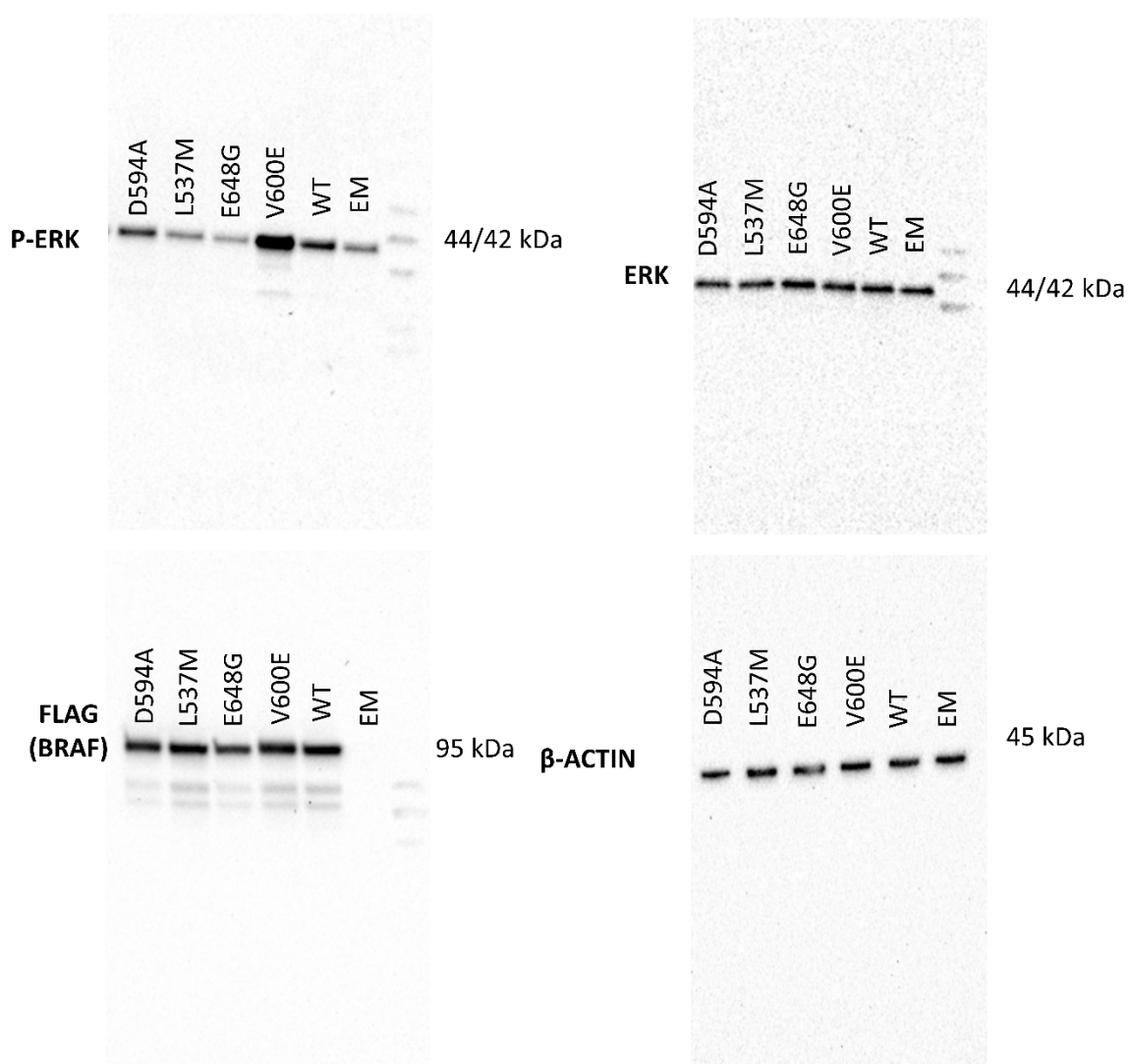
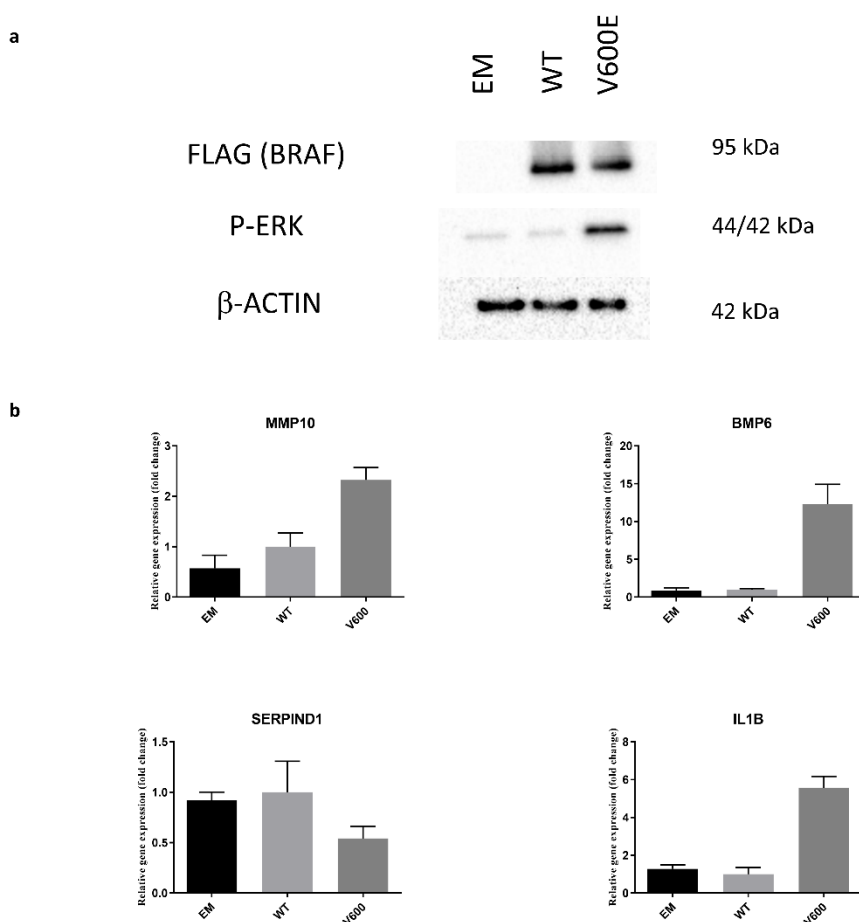


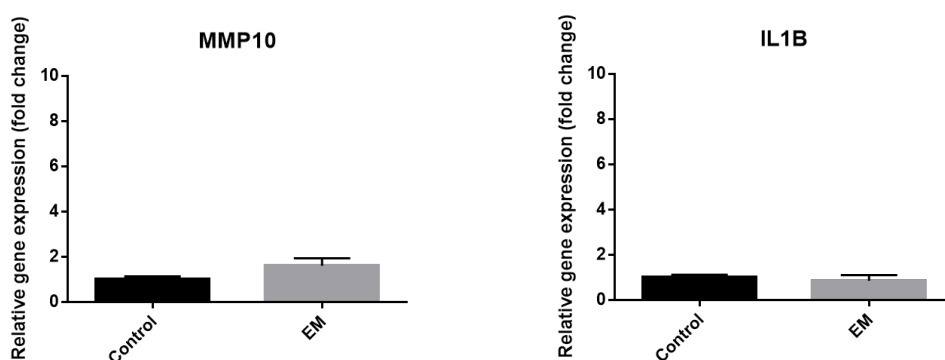
## Supplementary Materials



**Figure S1.** Uncropped pictures of Western blot for P-ERK, FLAG (BRAF), ERK, and  $\beta$ -ACTIN protein expression in THLE-2 cells. THLE-2 cells were overexpressed with p3XFLAG-CMV empty plasmid (EM), plasmid containing BRAF WT (WT) or BRAF mutations (V600E, E648G, L537M, D594A).



**Figure S2.** Influence of BRAF V600E mutation on the selected gene expression in Huh7 cell line. **(a)** Expression of FLAG (BRAF), ERK-phosphorylated (P-ERK), and  $\beta$ -ACTIN in Huh7 cells overexpressed with p3XFLAG-CMV empty plasmid (EM), or plasmid containing BRAF WT (WT) and BRAF mutation (V600E). **(b)** Real-time qPCR results of deregulated gene expression in Huh7 cells with BRAF V600E overexpression. Data are presented as a fold change in contrast to the expression of BRAF WT transfected cells ( $\pm$  SEM). B2M was used as a reference gene,  $n=2$ .



**Figure S3.** Influence of DNA transfection on the selected gene expression in THLE-2 cell line. Real-time qPCR results of selected gene expression in THLE-2 cells with Empty plasmid (EM) overexpression. Data are presented as a fold change in contrast to the expression of non-transfected cells (Control) ( $\pm$  SEM). B2M was used as a reference gene,  $n=3$ .