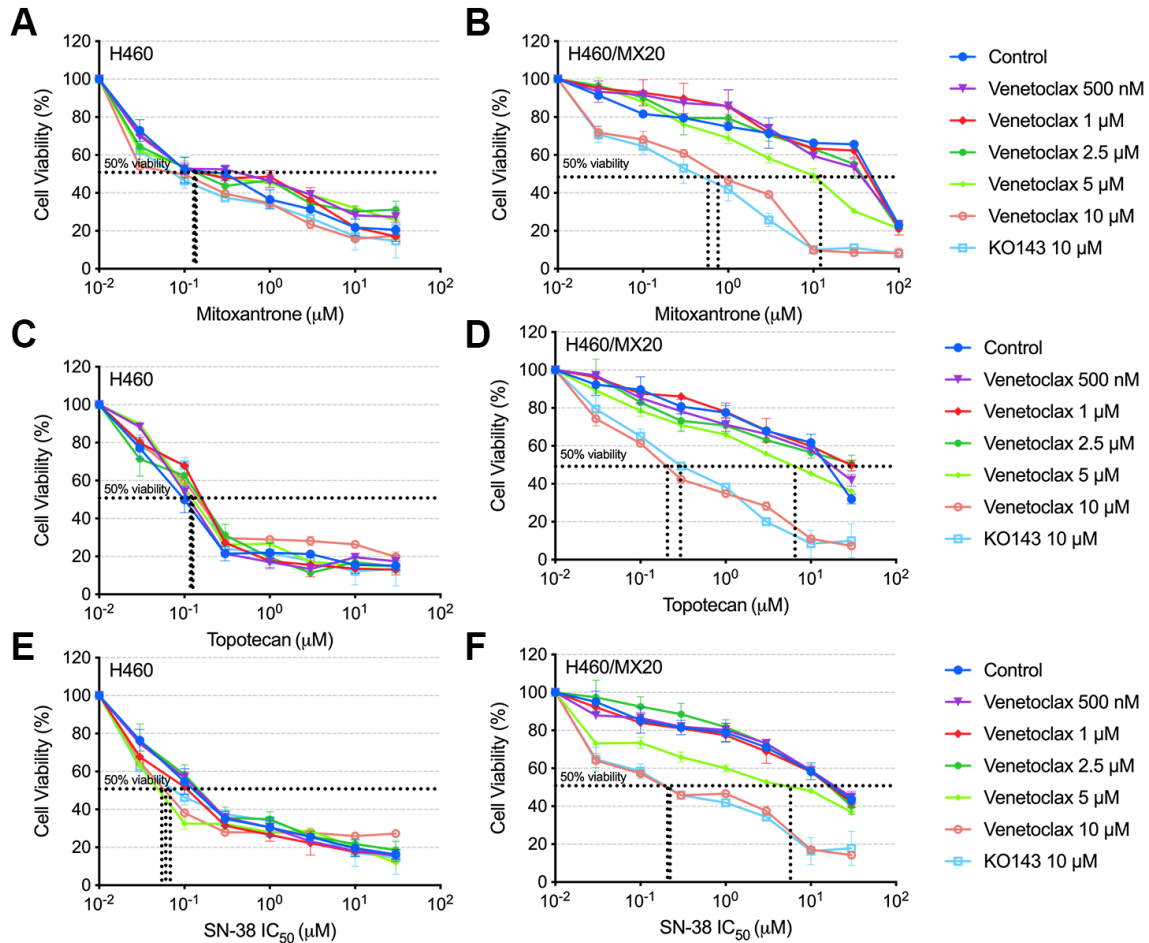
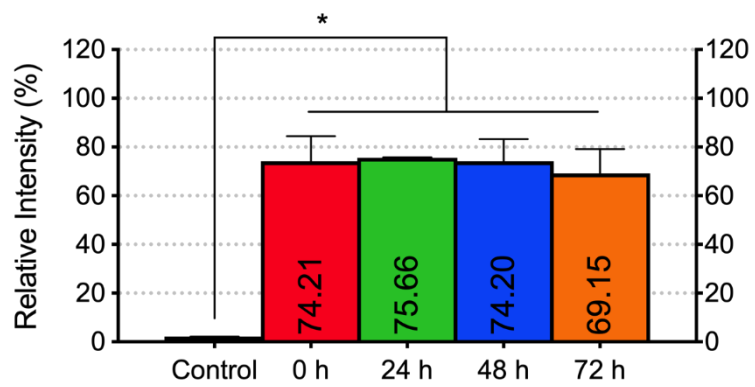
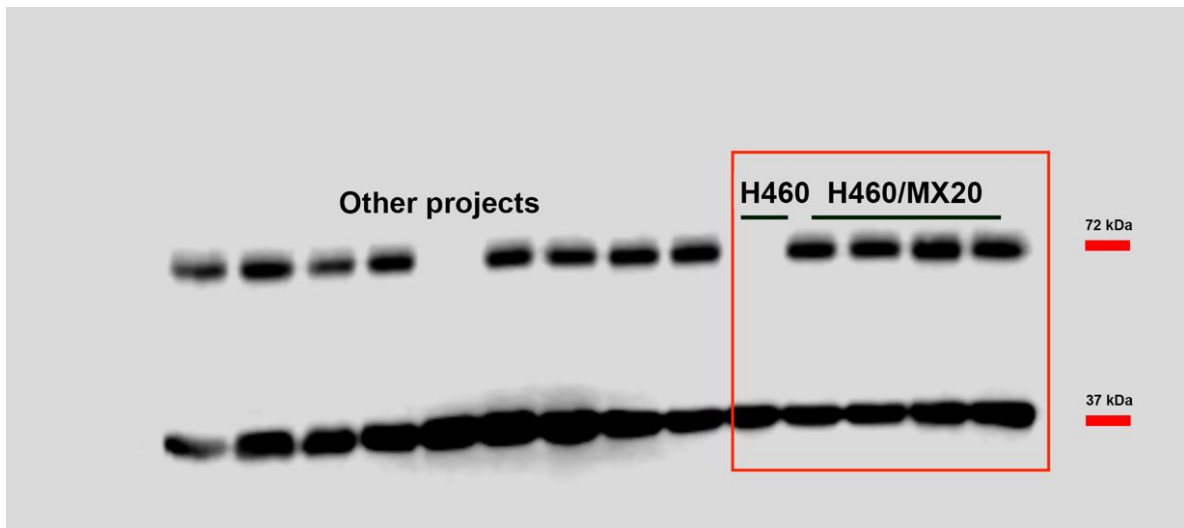


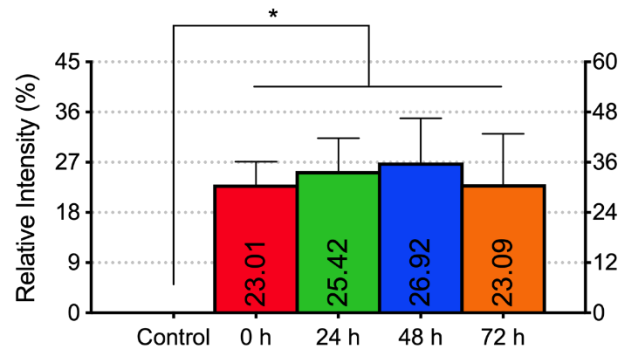
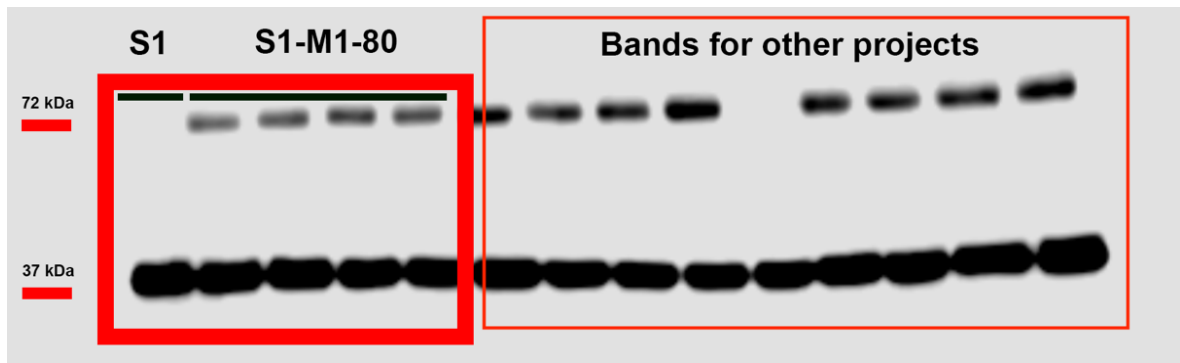
## Supplementary Materials:



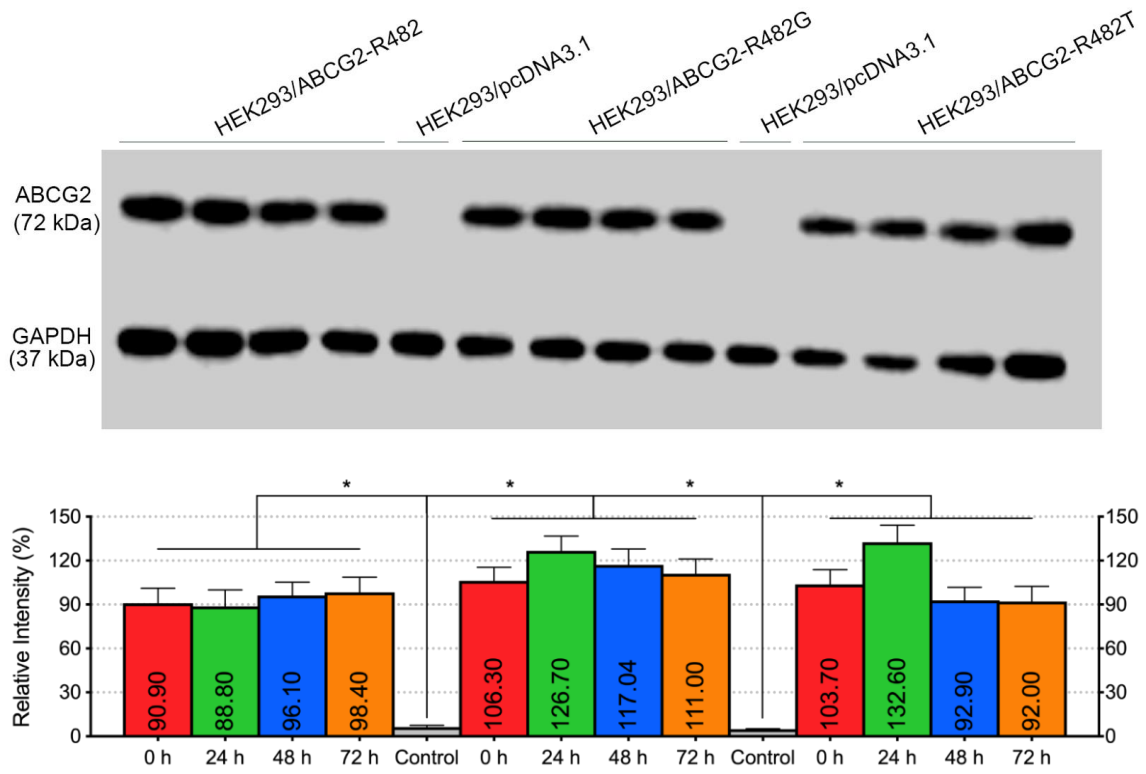
**Figure S1.** The effect of venetoclax in drug-selected ABCG2-overexpressing cells. Cell viability of (A) H460 or (B) H460/MX20 incubated for 72 h with mitoxantrone, mitoxantrone + venetoclax and mitoxantrone + KO143. (C) H460 or (D) H460/MX20 incubated with topotecan, topotecan + venetoclax and topotecan + KO143. (E) H460 or (F) H460/MX20 incubated for 72 h with SN-38, SN-38 + venetoclax and SN-38 + KO143. Black dash lines indicate 50% cell viability (horizontal) and corresponding  $\text{IC}_{50}$  values of anticancer drugs (vertical), anticancer drugs + 5/10  $\mu\text{M}$  venetoclax or 10  $\mu\text{M}$  KO143.



**Figure S2.** Whole blotting of H460 + H460/MX20. Bands circled by the red rectangular were H460 (left 1) and H460/MX20 (left 2–5). Molecular weight was marked by red rectangulars on the right side. Expression level quantification with relative grey scale values was displayed as bar graph.



**Figure S3.** Whole blotting of S1 + S1-M1-80. Bands circled by the red rectangular were S1 (left 1) and S1-M1-80 (left 2-5). Molecular weight was marked by red rectangular on the left side. Expression level quantification with relative grey scale values was displayed as bar graph.



**Figure S4.** Whole blotting of HEK293/pcDNA3.1 and HEK293/ABCG2 (wild-type and mutants). Molecular weights were marked on the left side. Expression level quantification with relative grey scale values was displayed as bar graph.