

Supplementary Figure 6. The effects of caspase and calpain-1 inhibition on the pattern of SQSTM1 cleavage in MGCD0103-treated CLL cells. (a, b) PBMC from CLL patients (n=3) were incubated alone or in the presence of MGCD0103 and/or inhibitors of calpain-1 (PD151746 (PD) (60 μmol/L)), caspase-6 (Z-VEID-fmk (100 μmol/L)) and total caspases (Q-VD-OPh (Q-VD) (10 μmol/L)) for 24 h. Protease inhibitors were added 1 hour before MGCD0103. Representative blots of SQSTM1 cleavage profile in CLL cells from 2 patient samples are shown. (c, d) To prove that the bands smaller than 62 KDa are real p62 cleavage products, SQSTM1 gene was knocked down in the easy-to-transfect HeLa cell line, where a similar cleavage of p62 has been described following a 4 hour-treatment with TRAIL 500 ng/mL.²² After 40 hours, HeLa cells were incubated with TRAIL 500 ng/mL during 4 hours. Protein lysates from HeLa cells and from 2 MGCD0103treated primary CLL samples (c) and (d) were, then, run together in an SDS-PAGE. siRNA-mediated knockdown of SQSTM1 gene resulted in 95% inhibition of SQSTM1 protein expression (when compared to scrambled siRNA and normalized to actin (quantified on the unsaturated protein bands, see blots under panel c) after 40 hours. Introduction of SQSTM1 siRNAs in HeLa cells resulted in decreased expression of the 62KDa band but also of the bands smaller than 62 KDa (compare lanes 3 and 5, and lanes 4 and 6), confirming that these bands originated from the 62 KDa protein. The cleavage bands observed in HeLa cells have the same mobility as the bands observed in MGCD0103-treated CLL patients' lysates (c) and (d), confirming that the bands recognized by the monoclonal anti-p62 antibody in CLL patients' samples are real SQSTM1 cleavage products..