### **Supporting Information**

# Cell-permeable PROTAC degrader against KEAP1 efficiently suppress hepatic stellate cell activation through antioxidant and anti-inflammatory pathway

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## Figure S1 Online server-based validation of structures generated by multiple predictors

Structures of KKP1, KKP2 and KKPs generated using TASSR, RoseTTAFold, RaptorX and PEP-FOLD3 were validated by ERRAT, PROCHECK and ProSA (overall and local) online server, RoseTTAFold generated structures of KKP1, KKP2 and KKPs have highest score among these four predictors.



**Figure S2 Prediction and quality assay of AlphaFold generated Keap1 structure** A. AlphaFold generated rat Keap1 protein structure.

- B. Local quality estimation of predicted rat Keap1 protein structure, blue bar indicated very high, while orange bar indicated low quality in prediction.
- C. Heat map of expected position error from aligned residues.



Figure S3 Fluorescence microscopy of FITC-labeled KKP1 at 7.5  $\mu$ M incubation with different time points under MG132 treatment.



### Figure S4 Downstream of Nrf2/ARE pathway involved in KKP1 mediated Keap1 degradation

- A. Western blot analysis of COX 2 and NQO-1 protein level in HSC-T6 treated with KKP1, KKP2 and KKPs for 8 hours.
- B. Densitometric quantification of COX 2 and NQO-1 protein in the blots shown in Figure S4A, data in the graph are means ± SEM of three independent measurements.
- C. The corresponding *p*-value plot between data pairs presenting in Figure S4B.