## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Mass Spectrometry Analysis of ASF1A-containing Protein Complex. Whole-cell extracts from MCF-7 cells with doxycycline (Dox)-inducible expression of stably integrated FLAG-ASF1A were purified with an anti-FLAG affinity column and analyzed by mass spectrometry. Information on Peptide fragments, peptide coverage and other parameters is shown.

File Name: Supplementary Data 2

Description: Mass spectrometry analysis of ASF1A ubiquitin conjugation sites. HeLa cells stably expressing FLAG-ASF1A were co-transfected with HA-Ub and USP52 siRNA. Cellular extracts were collected and sequentially purified with anti-FLAG affinity gel and HA affinity gel to enrich HA-Ub conjugated ASF1A. After trypsinization, the retrieved peptides were subjected to mass spectrometry analysis. Parameters of the identified ASF1A peptides with or without di-Glycine remnant are shown.