

Description of Additional Supplementary Files:

Supplementary Data 1: Gold standard positive dataset.

Supplementary Data 2: The comparison of the performance of TransDSI, UbiBrowser, and various machine learning methods.

Supplementary Data 3: The performance evaluation across diverse negative/positive ratios.

Supplementary Data 4: Predicted DUB-substrate interaction dataset (PDSID).

Supplementary Data 5: Gene Ontology (GO) term enrichment analysis for deubiquitinases (DUBs), known DUB substrates, and predicted DUB substrates.

Supplementary Data 6: Contributing residues for DUBs and their corresponding substrates involved in Gold standard positive dataset.

Supplementary Data 7: Experimentally validated DSI binding sites reported in the literature.

Supplementary Data 8: Relationship between amino acids and CT classes.