
Background

Ubiquitin-protein conjugates are highly dynamic structures, with an array of enzymes directing the conjugation of ubiquitin to substrates. There are large group of deubiquitinating enzymes (DUBs) that reverse the process. DUBs specifically cleave the ubiquitin-linked molecules after the terminal carbonyl of the last residue of ubiquitin (Gly76). Studies show that DUBs are important regulators of the ubiquitin system and are responsible for processing inactive ubiquitin precursors, removing ubiquitin from cellular adducts, proofreading ubiquitin-protein conjugates. In addition, DUBs enable the 26S proteasome to be free of inhibitory ubiquitin chains. DUBs are critical for preventing all the cellular ubiquitin from being rapidly titrated by compounds such as small intracellular neutrophiles.

Broad Spectrum Dub is a 40kda ubiquitin specific protease that cleaves all poly-ubiquitin chains irrespective of their linkage.

Alternate Names

deubiquitinating peptidases, deubiquitinating isopeptidases, deubiquitinases, ubiquitin proteases, ubiquitin hydrolases, or ubiquitin isopeptidases.

Application(s)

This enzyme is active in a wide range of activity assays such as ubiquitin-rhodamine, ubiquitin CHOP2 and IQF.

Product Specifications

Affinity Tag	His6
Purity	≥ 90%
Molecular Weight	40 KDa
Quantity	25 µg
Species	Human
Expression System	<i>E. Coli</i>
Physical State	Liquid
Activity	This enzyme is active in the UbiTest assay.
Storage	-80° C. Avoid repeated freeze/thaw cycles
Stability	Over 1 year at -80° C.

References

1. Nicholson, B., et al., Protein Sci., 2008.17(6): p.1035-43.
2. Amerik AY., et al., Biochim Biophys Acta. 2004;1695(1-3):189-207.