
MATERIAL DATA SHEET

Deconjugating Enzyme Probe Kit

Cat. # K-I10

These N-terminal tagged proteins are potent, irreversible and specific inhibitors of most deconjugating enzymes including ubiquitin C-terminal hydrolases (UCHs), ubiquitin specific proteases (USPs), Apg4b, SENPs and NEDPs. They are useful for inhibiting the hydrolysis of Ub/UBL chains or UB/UBL monomers on substrate proteins *in vitro*. The HA peptide sequence (YPYDVPDYA) is derived from the influenza hemagglutinin protein. This epitope allows for the sensitive identification or purification of deconjugating enzymes since it is specifically recognized by anti-HA antibodies and/or anti-HA-agarose. The FLAG epitope tag is a hydrophilic octapeptide (DYKDDDDK) derived from the sequence of the bacteriophage 7 gene-10 product. This epitope allows for the sensitive identification or purification of deconjugating activities since it is specifically recognized by anti-FLAG antibodies M1, M2 or M5.

This kit includes the following:

HA-Ubiquitin Vinyl Sulfone (HA-Ub-VS), *human recombinant*- This N-terminal HA-tagged ubiquitin is a potent, irreversible and specific inhibitor of most deubiquitinating enzymes (DUBs) including ubiquitin C-terminal hydrolases (UCHs) and ubiquitin-specific proteases (USPs). Useful for inhibiting the hydrolysis of poly-ubiquitin chains on substrate proteins *in vitro* and thus enhances poly-ubiquitin chain accumulation. The HA peptide sequence (YPYDVPDYA) is derived from the influenza hemagglutinin protein.

HA-SUMO-1 Vinyl Sulfone (HA-SUMO1-VS), *human recombinant*- This N-terminal HA-tagged SUMO is a potent, irreversible and specific inhibitor of SUMO-specific proteases (SENPs). This protein inhibits the hydrolysis of poly-SUMO chains on substrate proteins *in vitro* and thus enhances poly-SUMO chain accumulation.

HA-SUMO-2 Vinyl Sulfone (HA-SUMO2-VS), *human recombinant*- This N-terminal HA-tagged SUMO is a potent, irreversible and specific inhibitor of SUMO-specific proteases (SENPs). This protein inhibits the hydrolysis of poly-SUMO chains on substrate proteins *in vitro* and thus enhances poly-SUMO chain accumulation.

HA-SUMO-3 (HA-SUMO3-VS), *human recombinant*- This N-terminal HA-tagged SUMO is a potent, irreversible and specific inhibitor of SUMO-specific proteases (SENPs). This protein inhibits the hydrolysis of poly-SUMO chains on substrate proteins *in vitro* and thus enhances poly-SUMO chain accumulation.

FLAG-NEDD8 Vinyl Sulfone (FLAG-NEDD8-VS), *human recombinant*- This fully functional N-terminal FLAG-tagged NEDD8 is a potent, irreversible inhibitor of NEDD8-specific isopeptidases (like NEDP1 or SENP8, Cat # E-800). Useful for inhibiting the hydrolysis of poly-NEDD8 chains on substrate proteins *in vitro* and thus enhances poly-NEDD8 chain accumulation

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-241-7072 FAX: 617-492-3565

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HA-Apg8p3 (MAPLC3) Vinyl Sulfone, *human recombinant*- This N-terminal HA-tagged Apg8 protein is a potent, irreversible and specific inhibitor of Apg8-specific isopeptidases (such as Apg84B, Cat E-400). Apg84B activities include the processing of Apg8 precursor proteins and the removal of Apg8 proteins that are conjugated to phosphatidylethanolamine during autophagy. These processes can be inhibited by this vinyl sulfone derivative which reacts with the Apg84B active site cysteine.

Product Information				
	Protein	MW	Quantity	Stock Concentration
Supplied:	1. HA-Ub-VS	9.9 kDa	5 µg	X mg/ml (X µM)
	2. HA-SUMO1-VS	12.5 kDa	5 µg	X mg/ml (X µM)
	3. HA-SUMO2-VS	11.9 kDa	5 µg	X mg/ml (X µM)
	4. HA-SUMO3-VS	11.8 kDa	5 µg	X mg/ml (X µM)
	5. FLAG-NEDD8-VS	9.8 kDa	5 µg	X mg/ml (X µM)
	6. HA-Apg8p3-VS	15.5 kDa	5 µg	X mg/ml (X µM)
Stock:	50mM Hepes pH 7.0, 150 mM NaCl, 10% glycerol			
Purity:	> 90 % by HPLC			
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.			
Use:	Depending on conditions typical concentrations to fully inhibit deconjugating enzymes <i>in vitro</i> are between 1-5 µM.			

For Laboratory Research Use Only, Not For Use in Humans

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