

Lot # XXXXX

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MATERIAL DATA SHEET

HA-GABARAP Vinyl Sulfone, *human recombinant* Cat. # UL-441

This N-terminal HA-tagged protein is a potent, irreversible and specific inhibitor of ATG-specific isopeptidases (such as ATG4B, Cat # E-400). ATG4B activities include the processing of ATG8 precursor proteins and the removal of ATG8 proteins that are conjugated to phosphatidylethanolamine during autophagy. These processes can be inhibited by this vinyl sulfone derivative which reacts with the ATG4B active site cysteine. The HA peptide sequence (YPYDVPDYA) is derived from the influenza hemagglutinin protein. This epitope allows for the sensitive identification or purification of such deconjugating activities since it is specifically recognized by anti-HA antibodies and/or anti-HA-agarose.

Product Information

Quantity:	25 µg
Stock:	X mg/ml (X µM) in 50 mM MOPS pH 6.5, 150 mM NaCl, 100 mM Sodium Acetate, 5 % (v/v) Glycerol
MW:	15 kDa
Purity:	> 90% by SDS-PAGE under reducing conditions and visualized using Colloidal Coomassie Blue stain

Use & Storage

Use:	Add directly to <i>in vitro</i> assay from the stock solution. Depending on conditions and detection method, typical concentrations to fully inhibit ATG8 deconjugating enzymes <i>in vitro</i> are 1-5 µM.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Borodovsky A, <i>et al.</i> (2002) <u>Chem. Biol.</u> 9 :1149-1159 Hemelaar J., <i>et al.</i> (2003) <u>J Biol. Chem.</u> 278 :51841-51850 Hemelaar J., <i>et al.</i> (2004) <u>Mol. Cell. Biol.</u> 24 :84-95 Kessler B.M. (2006) <u>Exp. Rev. Proteomics.</u> 3 :213-221 Kumanomidou T., <i>et al.</i> (2006) <u>J. Mol. Biol.</u> 355 :612-618 Love K.R, <i>et al.</i> (2007) <u>Nat. Chem. Biol.</u> 3 :697-705 Wilkinson K.D. <i>et al.</i> (2005) <u>Meth. Enz.</u> 399 :37-51
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For Laboratory Research Use Only, Not For Use in Humans

Rev: 5/4/2015

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