

MATERIAL DATA SHEET

Recombinant Human 6-His Otubain-1

Cat. # E-522B

Otubain-1, also known as OTUB1 or Ubiquitin Thioesterase, is a member of the conserved ovarian tumor (OTU) protein family. It is a 271 amino acid (aa) polypeptide with a predicted molecular weight of 32 kDa. Otubain-1 is 99% identical at the aa level to its mouse and rat orthologs. It is a deubiquitinating enzyme (DUB) that appears to exhibit specificity for K48 Ubiquitin linkages (1). However, Otubain-1 may also affect K63 linkages independent of DUB activity. For instance, Otubain-1 can directly bind to and suppress UBC13 (UBE2N), a Ubiquitin Ligase (E2) that catalyzes the formation K63-linked Ubiquitin chains in response to DNA damage (2-4).

Product Information

Quantity:	50 µg
MW:	32 kDa
Source:	<i>E. coli</i> -derived Contains an N-terminal 6-His tag Accession # Q96FW1
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 100 mM NaCl, 1 mM TCEP
Purity:	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage

Use:	Recombinant Human His ₆ -Otubain-1 is a Ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. We recommend an initial His ₆ -Otubain-1 concentration of 1-5 µM.
Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• 12 months from date of receipt, -70 °C as supplied.• 3 months, -70 °C under sterile conditions after opening.

Literature

References:

1. Wang, T. *et al.* (2009) J. Mol. Biol. **386**:1011.
2. Nakada, S. *et al.* (2010) Nature **466**:941
3. Wiener, R. *et al.* (2012) Nature **483**:618.
4. Sato, Y. *et al.* (2012) J. Biol. Chem. **287**:25860.

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