

## MATERIAL DATA SHEET

### His<sub>6</sub>-USP8 (UBPY), *human recombinant*

#### Cat. # E-520

USP8 (Ubiquitin Specific Protease8) is a growth-regulated deubiquitinating enzyme (DUB) with a role in endosomal sorting of receptor tyrosine kinases (RTKs) such as EGFR *in vivo*. USP8 is a complex protein with a coiled-coil region, non-classical SH3 binding motif, rhodanese and catalytic domains whose individual structures have been determined. The N-terminus has a novel dimerization fold but it is not known if the full-length protein exists as a homodimer. The C-terminus contains the DUB catalytic center and a nearby Zn<sup>++</sup> ribbon subdomain which might have a role in poly-Ub binding specificity and substrate-induced conformational changes. USP8 has DUB activity on Ub chains *in vitro* and does not discriminate between K48- and K63-linked isopeptide bonds. USP8 interacts with several proteins including Hrs binding protein Hbp, Mona/Gads, Ras exchange factor CDC25<sup>Mm</sup>, GRAIL3 and NRDP1 E3 ligases, and 14-3-3ε. The overall function of USP8 is still unclear but its main role is in endocytosis which influences signaling cascades for mitogenesis, cell survival, differentiation and migration. This protein contains an N-terminal His<sub>6</sub>-tag.

#### Product Information

<b>Quantity:</b>	25 µg
<b>Stock:</b>	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 150 mM NaCl, 10% glycerol, 0.5 mM EDTA, 1mM DTT. Concentration varies with Lot #.
<b>MW:</b>	131 kDa
<b>Purity:</b>	> 95% by SDS-PAGE

#### Use & Storage

<b>Use:</b>	Typical enzyme concentration for use <i>in vitro</i> ranges from 1-5 µM depending on conditions and substrate.
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

#### Literature

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