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MATERIAL DATA SHEET

Recombinant Human His6 USP16
Cat. # E-612

USP16 is a deubiquitinating enzyme (DUB) of the C19 peptidase family, USP16 subfamily. Human USP16 has a predicted molecular weight of 94 kDa and is 83% identical to both mouse and rat orthologues. USP16 plays significant roles in cell-cycle progression and Hox gene expression, and USP16 knockdown in HeLa cells results in defects in the mitotic phase of the cell cycle. Studies reveal that histone H2A deubiquitination by USP16 is a prerequisite for phosphorylation of serine 10 of histone H3 and chromosome segregation during mitosis. USP16 specifically deubiquitinates histone H2A, but not H2B, both *in vitro* and *in vivo*. PLK1 serine/threonine kinase is another reported target of USP16. Finally, a chromosomal inversion involving USP16 and RUNX1/AML1 is a causative event in the development of chronic myelomonocytic leukemia (CMML). This recombinant protein contains an N-terminal 6-His tag.

Product Information	
Quantity:	25 µg
MW:	94 kDa
Source:	*Spodoptera frugiperda*, *Sf* 21 (baculovirus)-derived Accession # Q9Y5T5
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 100 mM NaCl, 10% (v/v) Glycerol, 1 mM TCEP
Purity:	>85%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage	
Use:	Recombinant Human USP16 is a Ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. USP16 does not efficiently utilize Ubiquitin-AMC (U-550), Ubiquitin-Rhodamine 110 (U-555), nor unanchored poly-Ubiquitin chains as substrates *in vitro*. USP16 cleaves Ubiquitin from recombinant, designer nucleosomes.
Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -70 °C as supplied. • 3 months, -70 °C under sterile conditions after opening.

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Literature

References:

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