
MATERIAL DATA SHEET

Recombinant Human His6 USP19**Cat. # E-576**

Ubiquitin specific processing protease 19 (USP19) is a 146 kDa member of the C19 peptidase family that contains two alpha crystallin domains and one MYND-type zinc finger. USP19 plays a role in the rescue of ER-associated protein degradation (ERAD) substrates such as cystic fibrosis transmembrane conductance regulator (CFTR) Δ F508 and T-cell receptor-alpha (TCR α) from proteasomal degradation. USP19 also interacts with the ubiquitin ligases cellular IAP 1 (cIAP1) and cIAP2. Knockdown of USP19 decreases levels of both cIAPs, whereas overexpression of USP19 results in a marked increase in cIAP levels. Although it effectively removes ubiquitin from cIAPs *in vitro*, USP19 may stabilize cIAP proteins *in vivo* mainly through deubiquitinase-independent mechanisms. Intriguingly, partial rescue of TCR α (but not CFTR Δ F508) in the ERAD pathway is also observed using a catalytically dead USP19, suggesting that USP19 exerts a non-catalytic function for select substrates in multiple biological pathways. This recombinant protein contains amino acids a C-terminal 6-His tag.

Product Information

Quantity:	50 μ g
MW:	143 kDa
Source:	<i>Spodoptera frugiperda</i> , Sf21 (baculovirus)-derived Met1 - Arg1290, Contains a C-terminal 6-His tag Accession # O94966
Stock:	X mg/ml (X μ M) in 50 mM HEPES pH 7.5, 100 mM NaCl, 2 mM TCEP
Purity:	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage

Use:	Recombinant Human His6-USP19 is a ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. We recommend an initial USP19 concentration of 10-100 nM.
Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• 6 months from date of receipt, -70 °C as supplied.• 3 months, -70 °C under sterile conditions after opening.

Literature

References:

1. Hassink G.C., *et al.* (2009) EMBO Rep. **10**: 755
2. Iphöfer, A. *et al.* (2012) ChemBioChem **13**: 1416
3. Mei, Y. *et al.* (2011) J. Biol. Chem. **286**: 35380

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