His<sub>6</sub>-USP19, human recombinant
Cat. # E-576

Ubiquitin specific processing protease 19 (USP19) is a 146 kDa member of the C19 peptidase family and 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) ΔF508 and T-cell receptor-alpha (TCRα) 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 <em>in vitro</em>, USP19 may stabilize cIAP proteins <em>in vivo</em> mainly through deubiquitinase-independent mechanisms. Intriguingly, partial rescue of TCRα (but not CFTR ΔF508) 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 1-1290 (UniProt # O94966) and a C-terminal 6-His tag.

### Product Information

| Quantity: | 50 μg |
| Stock: | 0.72 mg/ml (5 μM) in 50 mM HEPES pH 7.5, 100 mM NaCl, 2 mM TCEP |
| MW: | 143 kDa |
| 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:** Store at -80°C. Avoid multiple freeze/thaw cycles.

### Literature

**References:**


Mei, Y. et al. (2011) <em>J. Biol. Chem.</em> 286: 35380

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