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MATERIAL DATA SHEET

Recombinant Human His6 USP12
Cat. # E-578

Ubiquitin carboxyl-terminal hydrolase 12 (USP12) is a specialized cysteine protease with a predicted molecular weight of 43 kDa. USP12 is a member of the peptidase C19 family and USP12/USP46 subfamily, and the human protein shares 98% amino acid sequence identity with its mouse ortholog. Like USP1 and USP46, USP12 lacks appreciable activity in the absence of its co-activator UAF1. Addition of UAF1 increases the *in vitro* activity of USP12 20-fold or more. WDR20 is often found in complex with both USP12 and UAF1, and the ternary complex is reported to be more active than the USP12/UAF1 complex. Biologically, USP12 has been implicated as a positive regulator of Androgen Receptor (AR) activity via a mechanism that involves down-regulation of Akt activity. As such, it has been proposed that USP12 inhibition could offer a therapeutic target for some forms of prostate cancer. This recombinant protein contains a C-terminal 6-His tag.

Product Information	
Quantity:	50 µg
MW:	44 kDa
Source:	*Spodoptera frugiperda*, *Sf* 21 (baculovirus)-derived Contains a C-terminal 6-His tag Accession # O75317
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.2, 200 mM NaCl, 10% (v/v) Glycerol, 2 mM TCEP
Purity:	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

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Use & Storage

Use: Recombinant Human USP12 is a Ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. We recommend an initial USP12 concentration of 50-500 nM. Requires a 1:1 stoichiometric amount of UAF1 (**E-566**) for activity when using Ubiquitin-AMC or Ubiquitin-Rhodamine (**U-550**, **U-555)** as a substrate. *In vitro*, the USP12/UAF1 complex will not efficiently hydrolyze poly-Ubiquitin chains in the absence of WDR20.

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.

Literature

References:

1. Burska, U.L. et al. (2013) J Biol Chem. **288**: 32641
2. Cohn, M.A. et al. (2009) J Biol Chem. **284**: 5343
3. Gangula, N.R. & Maddika, S. (2013) J Biol Chem. **288**: 34545
4. Kee, Y. et al. (2010) J Biol Chem. **285**: 11252
5. McClurg, U.L. et al. (2014) Oncotarget **5**: 7081
6. Ohashi, M. et al. (2015) PLoS Pathog. DOI: 10.1371/journal.ppat.1004822

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