

MATERIAL DATA SHEET**His6-USP22, human recombinant****Cat. # E-608**

Ubiquitin carboxyl-terminal hydrolase 22 (USP22) is a specialized cysteine protease with a predicted molecular weight of 60 kDa. USP22 is a member of the peptidase C19 family (UBP8 subfamily) and the human protein shares 98% amino acid sequence identity with its mouse ortholog. USP22 is a member of the SAGA (Spt-Ada-Gcn5 acetyltransferase) complex, a 2 MDa protein machine that mediates the acetylation and deubiquitination of histones as well as non-histone substrates. Within SAGA, USP22 binds directly with ATXN7L3 and provides the activity required to deubiquitinate mono-ubiquitinated histone H2B. Recent findings suggest USP27X and USP51, which function independently of SAGA may compete with USP22 for ATXN7L3 and ENY2 binding, and that imbalances in these activities may contribute to human diseases including cancer. This protein contains an N-terminal 6-His tag.

Product Information

Quantity:	50 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 100 mM NaCl, 10% (v/v) Glycerol, 2 mM TCEP.
MW:	59 kDa
Purity:	> 95% by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue stain

Use & Storage

Use:	Recombinant Human USP22 is a Ubiquitin-specific deconjugating enzyme. Reaction conditions will need to be optimized for each specific application. We recommend an initial USP22 concentration of 20-100 nM when using Ubiquitin-AMC or Ubiquitin-Rh110 (U-550, U-555) substrates. Note: Recombinant USP22 is not active toward poly-Ubiquitin chains, Ubiquitinated histones and other Ubiquitinated protein substrates in the absence of adapter proteins such as ATXN7L or ENY2.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

- References:** Atanassov B.S., *et al.* (2016) Mol. Cell **62**: 558
Atanassov B.S., *et al.* (2011) FEBS Lett. **585**: 2016
Koutelou E., *et al.* (2010) Curr Opin Cell Biol. **22**: 374
Lang G., *et al.* (2011) Mol Cell Biol. **31**: 3734
Zhang X.Y., *et al.* (2008) Mol. Cell **29**: 102
Zhao Y., *et al.* (2008) Mol. Cell **29**: 92

For Laboratory Research Use Only, Not For Use in Humans

Rev: 8/18/2016

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-576-2210 FAX: 617-492-3565
www.bostonbiochem.com

The contents of this datasheet (unless otherwise noted) are Copyright © 2008 Boston Biochem, Inc. All rights reserved. Duplication in whole or in part is strictly prohibited without the express written consent of Boston Biochem, Inc. "Boston Biochem" is a Trademark of Boston Biochem, Inc., 840 Memorial Drive, Cambridge, MA 02139.