

**Product** Data Sheet

# **Screening Libraries**

**Proteins** 



# **USP46 Protein, Human**

Cat. No.: HY-P701419

USP46; Ubiquitin carboxyl-terminal hydrolase 46; Deubiquitinating enzyme 46; Ubiquitin Synonyms:

thioesterase 46; Ubiquitin-specific-processing protease 46

Species: Human Source: E. coli

Accession: P62068 (M1-E366)

Gene ID: 64854

Molecular Weight: Approximately 42.5 kDa

PROPERT	

Biological Activity	The fundamental role of USP46 is specific removal of ubiquitin from substrates. USP46 catalyses the ubiquitin from the substrate Ub-Rho110 to release fluorophores. Rho110 will release 535nM emission light under the excitation condition of 485nM.
Appearance	Solution
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM HEPES (pH 7.5), 200 mM NaCl, 10% glycerol, 1 mM DTT.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

## **DESCRIPTION**

Background

USP46 is identified as a behaviorally relevant deubiquitinating enzyme, potentially influencing behavior through the regulation of GABAergic neurotransmission. Its role is suggested to involve mediating the deubiquitination of GAD1/GAD67, crucial in GABA synthesis. Remarkably, USP46 exhibits minimal deubiquitinating activity independently, necessitating interaction with WDR48 for substantial enzymatic function. This intricate partnership with WDR48 highlights the collaborative nature of its enzymatic activity. Notably, USP46 does not participate in the deubiquitination of monoubiquitinated FANCD2, indicating specificity in its cellular functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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