

# **USP14** Antibody (monoclonal) (M08)

Mouse monoclonal antibody raised against a partial recombinant USP14. Catalog # AT4483a

## **Specification**

# USP14 Antibody (monoclonal) (M08) - Product Information

Application WB, E
Primary Accession P54578
Other Accession NM\_005151
Reactivity Human, Mouse, Rat

Host mouse
Clonality Monoclonal
Isotype IgG2a Kappa

Calculated MW 56069

## USP14 Antibody (monoclonal) (M08) - Additional Information

#### **Gene ID 9097**

#### **Other Names**

Ubiquitin carboxyl-terminal hydrolase 14, Deubiquitinating enzyme 14, Ubiquitin thioesterase 14, Ubiquitin-specific-processing protease 14, USP14, TGT

### Target/Specificity

USP14 (NP\_005142, 395 a.a.  $\sim$  494 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

## **Dilution**

WB~~1:500~1000 E~~N/A

#### **Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2.

#### Storage

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

# **Precautions**

USP14 Antibody (monoclonal) (M08) is for research use only and not for use in diagnostic or therapeutic procedures.

# USP14 Antibody (monoclonal) (M08) - Protocols

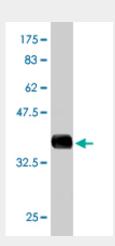
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides

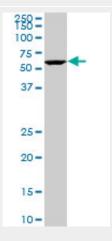


- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

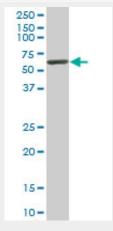
# USP14 Antibody (monoclonal) (M08) - Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa).

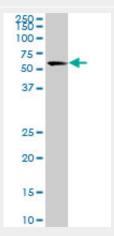


USP14 monoclonal antibody (M08), clone 1F8. Western Blot analysis of USP14 expression in PC-12 ( (Cat # AT4483a )

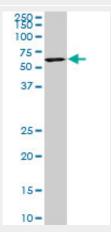




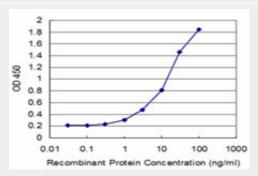
USP14 monoclonal antibody (M08), clone 1F8. Western Blot analysis of USP14 expression in Hela S3 NE ( (Cat # AT4483a )



USP14 monoclonal antibody (M08), clone 1F8. Western Blot analysis of USP14 expression in Raw 264.7 ( (Cat # AT4483a )



USP14 monoclonal antibody (M08), clone 1F8. Western Blot analysis of USP14 expression in NIH/3T3 ( (Cat # AT4483a )



Detection limit for recombinant GST tagged USP14 is approximately 1ng/ml as a capture antibody.

# USP14 Antibody (monoclonal) (M08) - Background

This gene encodes a member of the ubiquitin-specific processing (UBP) family of proteases that is a deubiquitinating enzyme (DUB) with His and Cys domains. This protein is located in the cytoplasm and cleaves the ubiquitin moiety from ubiquitin-fused precursors and ubiquitinylated proteins. Mice with a mutation that results in reduced expression of the ortholog of this protein are retarded for growth, develop severe tremors by 2 to 3 weeks of age followed by hindlimb paralysis and death by





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6 to 10 weeks of age. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

# USP14 Antibody (monoclonal) (M08) - References

New genetic associations detected in a host response study to hepatitis B vaccine. Davila S, et al. Genes Immun, 2010 Apr. PMID 20237496. The proteasome-associated deubiquitinating enzyme Usp14 is essential for the maintenance of synaptic ubiquitin levels and the development of neuromuscular junctions. Chen PC, et al. | Neurosci, 2009 Sep 2. PMID 19726649. Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.USP14 inhibits ER-associated degradation via interaction with IRE1alpha. Nagai A, et al. Biochem Biophys Res Commun, 2009 Feb 20. PMID 19135427. Deubiquitination of CXCR4 by USP14 is critical for both CXCL12-induced CXCR4 degradation and chemotaxis but not ERK ativation. Mines MA, et al. J Biol Chem, 2009 Feb 27. PMID 19106094.