

**USP14 Antibody (monoclonal) (M04)****Mouse monoclonal antibody raised against a partial recombinant USP14.****Catalog # AT4482a****Specification**

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**USP14 Antibody (monoclonal) (M04) - Product Information**

|                   |                           |
|-------------------|---------------------------|
| Application       | WB, IF, E                 |
| Primary Accession | <a href="#">P54578</a>    |
| Other Accession   | <a href="#">NM_005151</a> |
| Reactivity        | Human, Mouse, Rat         |
| Host              | mouse                     |
| Clonality         | Monoclonal                |
| Isotype           | IgG2a Kappa               |
| Calculated MW     | 56069                     |

**USP14 Antibody (monoclonal) (M04) - 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. ~ 494 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

IF~~1:50~200

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) (M04) is for research use only and not for use in diagnostic or therapeutic procedures.

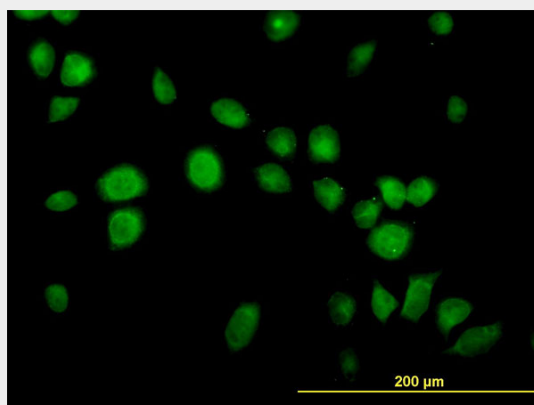
**USP14 Antibody (monoclonal) (M04) - Protocols**

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

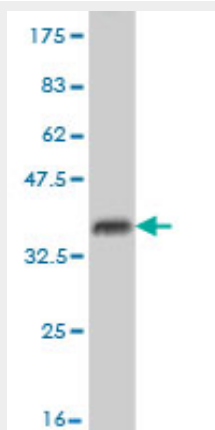
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

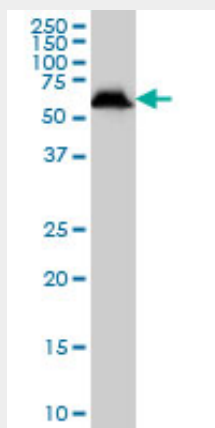
#### USP14 Antibody (monoclonal) (M04) - Images



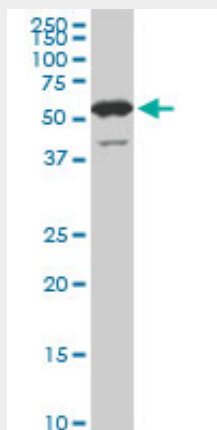
Immunofluorescence of monoclonal antibody to USP14 on HeLa cell. [antibody concentration 20 ug/ml]



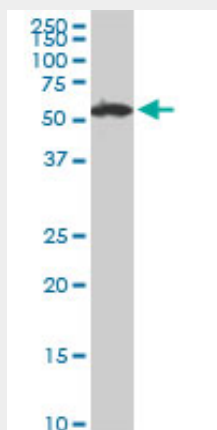
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .



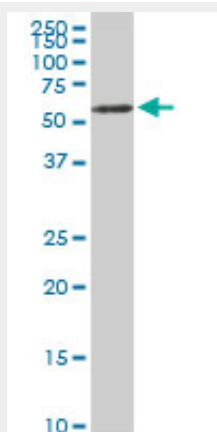
USP14 monoclonal antibody (M04), clone 6D6 Western Blot analysis of USP14 expression in HeLa (Cat # AT4482a)



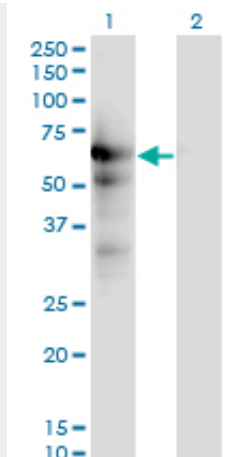
USP14 monoclonal antibody (M04), clone 6D6. Western Blot analysis of USP14 expression in PC-12 (Cat # AT4482a)



USP14 monoclonal antibody (M04), clone 6D6. Western Blot analysis of USP14 expression in Raw 264.7 (Cat # AT4482a)



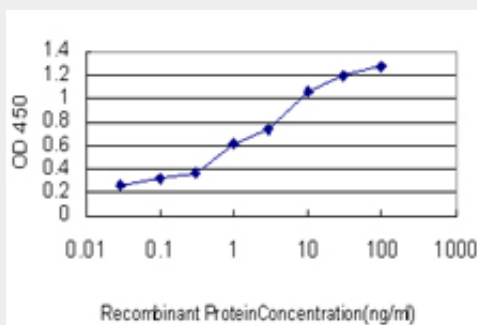
USP14 monoclonal antibody (M04), clone 6D6. Western Blot analysis of USP14 expression in NIH/3T3 (Cat # AT4482a)



Western Blot analysis of USP14 expression in transfected 293T cell line by USP14 monoclonal antibody (M04), clone 6D6.

Lane 1: USP14 transfected lysate(56.1 KDa).

Lane 2: Non-transfected lysate.



Detection limit for recombinant GST tagged USP14 is approximately 0.1ng/ml as a capture antibody.

### USP14 Antibody (monoclonal) (M04) - 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 ubiquitinated 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 6 to 10 weeks of age. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

### USP14 Antibody (monoclonal) (M04) - 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. J 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 activation. Mines MA, et al. J Biol Chem, 2009 Feb 27. PMID 19106094.