

USP14 monoclonal antibody

Catalog: MB67022

Host: M

Mouse

Reactivity: Human, Mouse, Rat

BackGround:

Ubiquitinating enzymes (UBEs) catalyze protein ubiquitination, a reversible process countered by deubiquitinating enzyme (DUB) action . Five DUB subfamilies are recognized, including the USP, UCH, OTU, MJD, and JAMM enzymes. In humans, there are three proteasomal DUBs: PSMD14 (POH1/RPN11), UCH37 (UCH-L5), and Ubiquitin-Specific Protease 14, which is also known as the 60 kDa subunit of tRNA-guanine transglycosylase (USP14/TGT60 kDa). USP14 is recruited to the proteasome through its reversible association with the PSMD2 (S2/hRPN1) subunit of the 19S regulatory particle. Whereas PSMD14 appears to promote substrate degradation, USP14 is thought to antagonize substrate degradation . While the underlying mechanism for the opposing roles of these two proteasomal DUBs is still uncertain, it is thought that USP14 removes ubiquitin from substrate upon docking of the substrate with the 26S proteasome. Furthermore, USP14 trims ubiquitin residues from the distal end of the polyubiquitin chain, thus decreasing the affinity of the chain for the ubiquitin receptors of the proteasome, and allowing for enhanced substrate stability. Studies have elucidated a physiologic role for USP14 in regulating synaptic activity in mammals . Research studies have shown that targeting this activity with small molecule inhibitors has potential benefits for the treatment of neurodegenerative diseases and cancer .

Product:

Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 60 kDa

Swiss-Prot:

P54578

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000)

Storage&Stability:

Store at $4 \,^{\circ}{\rm C}$ short term. Aliquot and store at $-20 \,^{\circ}{\rm C}$ long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of USP14 protein.

DATA:



Western blot analysis of USP14 expression in K562 (A), Jurkat (B), mouse brain (C), rat brain (D) whole cell lysates.

Note:

For research use only, not for use in diagnostic procedure.

Bioworld Technology, Inc.Add:1660 South Highway 100, Suite 500 St. Louis Park,
MN 55416,USA.Email:info@bioworlde.comTel:6123263284Fax:6122933841

Bioworld technology, co. Ltd.

 Add:
 No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

 Email:
 info@biogot.com

 Tel:
 0086-025-68037686

 Fax:
 0086-025-68035151