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PSMC4 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant PSMC4.
Catalog # AT3466a

Product Information

Application	WB, IHC, IF, E
Primary Accession	P43686
Other Accession	BC000343
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a kappa
Clone Names	3G8
Calculated MW	47366

Additional Information

Gene ID	5704
Other Names	26S protease regulatory subunit 6B, 26S proteasome AAA-ATPase subunit RPT3, MB67-interacting protein, MIP224, Proteasome 26S subunit ATPase 4, Tat-binding protein 7, TBP-7, PSMC4, MIP224, TBP7
Target/Specificity	PSMC4 (AAH00343, 1 a.a. ~ 418 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 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	PSMC4 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

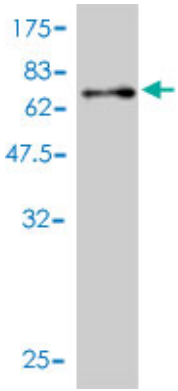
The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. This gene encodes one of the ATPase subunits, a member of the triple-A family of ATPases which have a chaperone-like activity. This subunit has been shown to interact with an orphan member of the

nuclear hormone receptor superfamily highly expressed in liver, and with gankyrin, a liver oncoprotein. Two transcript variants encoding different isoforms have been identified.

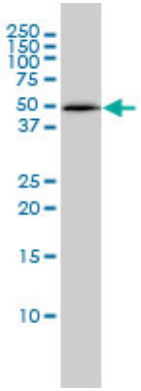
References

Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732. Assembly pathway of the Mammalian proteasome base subcomplex is mediated by multiple specific chaperones. Kaneko T, et al. Cell, 2009 May 29. PMID 19490896. Chaperone-mediated pathway of proteasome regulatory particle assembly. Roelofs J, et al. Nature, 2009 Jun 11. PMID 19412159. A comprehensive genetic study of the proteasomal subunit S6 ATPase in German Parkinson's disease patients. Wahl C, et al. J Neural Transm, 2008 Aug. PMID 18446261. Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. Mol Cell Proteomics, 2008 Mar. PMID 18029348.

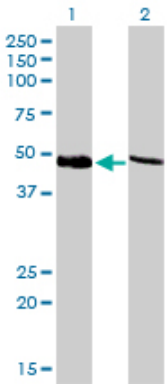
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (71.72 KDa) .



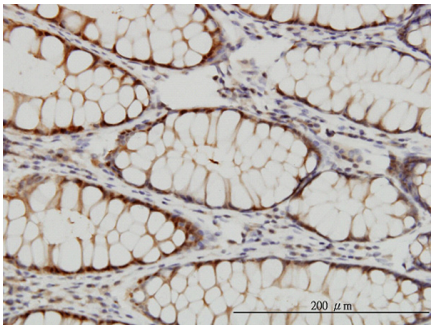
PSMC4 monoclonal antibody (M01), clone 3G8 Western Blot analysis of PSMC4 expression in HepG2 ((Cat # AT3466a)

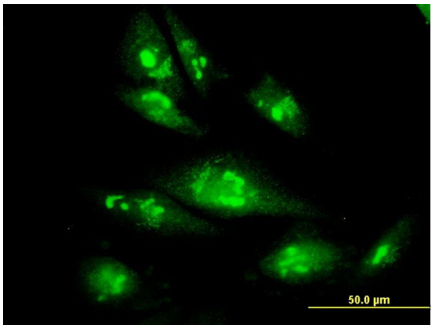


Western Blot analysis of PSMC4 expression in transfected 293T cell line by PSMC4 monoclonal antibody (M01), clone 3G8.

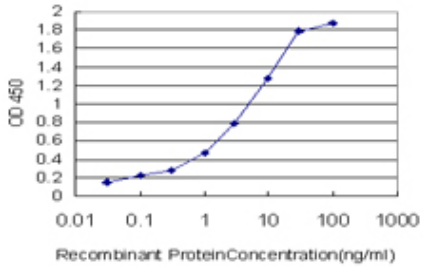
Lane 1: PSMC4 transfected lysate(47.4 KDa).
Lane 2: Non-transfected lysate.

Immunoperoxidase of monoclonal antibody to PSMC4 on formalin-fixed paraffin-embedded human colon. [antibody concentration 3 ug/ml]





Immunofluorescence of monoclonal antibody to PSMC4 on HepG2 cell. [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged PSMC4 is approximately 0.03ng/ml as a capture antibody.

Citations

- Chaperone-mediated 26S Proteasome Remodeling Facilitates Free K63 Ubiquitin Chain Production and Aggresome Clearance.