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PSMC2 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant PSMC2.
Catalog # AT3464a

Product Information

Application	WB, IF, E
Primary Accession	P35998
Other Accession	BC002589
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 kappa
Clone Names	4C10-2C8
Calculated MW	48634

Additional Information

Gene ID	5701
Other Names	26S protease regulatory subunit 7, 26S proteasome AAA-ATPase subunit RPT1, Proteasome 26S subunit ATPase 2, Protein MSS1, PSMC2, MSS1
Target/Specificity	PSMC2 (AAH02589.1, 1 a.a. ~ 433 a.a) full-length 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	PSMC2 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

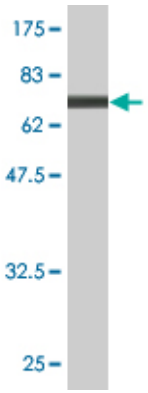
The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. The 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 several of the basal transcription factors so, in addition to participation in proteasome functions, this subunit may participate in

the regulation of transcription. This subunit may also compete with PSMC3 for binding to the HIV tat protein to regulate the interaction between the viral protein and the transcription complex.

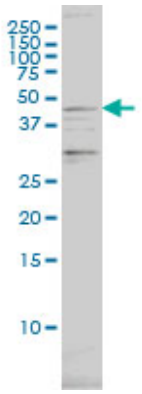
References

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.Large-scale mapping of human protein-protein interactions by mass spectrometry. Ewing RM, et al. Mol Syst Biol, 2007. PMID 17353931.Proteomics analysis of the interactome of N-myc downstream regulated gene 1 and its interactions with the androgen response program in prostate cancer cells. Tu LC, et al. Mol Cell Proteomics, 2007 Apr. PMID 17220478.

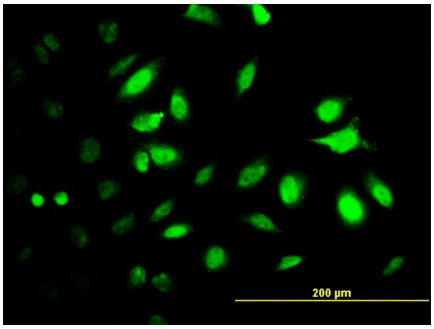
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (73.37 KDa) .



PSMC2 monoclonal antibody (M01), clone 4C10-2C8 Western Blot analysis of PSMC2 expression in SW-13 ((Cat # AT3464a)



Immunofluorescence of monoclonal antibody to PSMC2 on HeLa cell. [antibody concentration 10 ug/ml]

Detection limit for recombinant GST tagged PSMC2 is 0.3 ng/ml as a capture antibody.