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PSMA7 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant PSMA7.
Catalog # AT3455a

Product Information

Application	WB, IHC, IF, IP, E
Primary Accession	O14818
Other Accession	BC004427
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	1A10-3G12
Calculated MW	27887

Additional Information

Gene ID	5688
Other Names	Proteasome subunit alpha type-7, Proteasome subunit RC6-1, Proteasome subunit XAPC7, PSMA7, HSPC
Target/Specificity	PSMA7 (AAH04427, 1 a.a. ~ 248 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 IP~~N/A 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	PSMA7 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

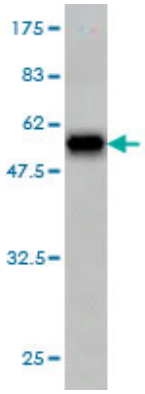
The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. The core structure is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. Proteasomes are distributed throughout 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 a member of the peptidase T1A family, that is a 20S core alpha subunit. This particular subunit has been shown to interact specifically with the hepatitis B virus X protein, a protein critical to viral replication. In addition, this subunit is involved in regulating hepatitis virus C internal ribosome entry site (IRES) activity, an activity essential for viral replication. This core alpha subunit is also involved in regulating the hypoxia-inducible factor-1alpha, a transcription factor important for cellular

responses to oxygen tension. Multiple isoforms of this subunit arising from alternative splicing may exist but alternative transcripts for only two isoforms have been defined. A pseudogene has been identified on chromosome 9.

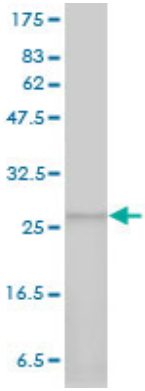
References

1.PSMA7 inhibits the tumorigenicity of A549 human lung adenocarcinoma cells.Tan JY, Huang X, Luo YL.Mol Cell Biochem. 2012 Jul;366(1-2):131-7. Epub 2012 May 15.2.Proteomic identification of putative biomarkers of radiotherapy resistance: a possible role for the 26S proteasome?Smith L, Qutob O, Watson MB, Beavis AW, Potts D, Welham KJ, Garimella V, Lind MJ, Drew PJ, Cawkwell L.Neoplasia. 2009 Nov;11(11):1194-207.

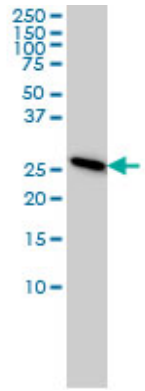
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (53.02 KDa) .



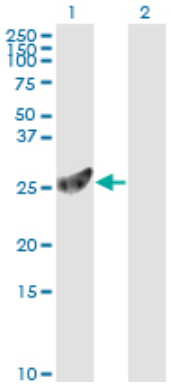
PSMA7 monoclonal antibody (M01), clone 1A10-3G12. Western Blot analysis of PSMA7 expression in human omentum, serous carcinoma.



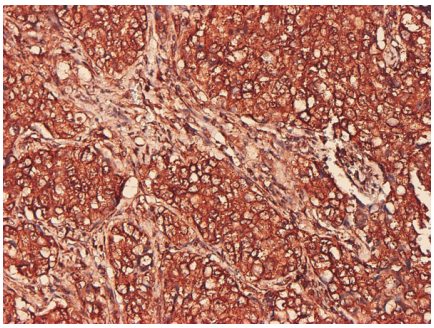
PSMA7 monoclonal antibody (M01), clone 1A10-3G12 Western Blot analysis of PSMA7 expression in HeLa ((Cat # AT3455a)

Western Blot analysis of PSMA7 expression in transfected 293T cell line by PSMA7 monoclonal antibody (M01), clone 1A10-3G12.

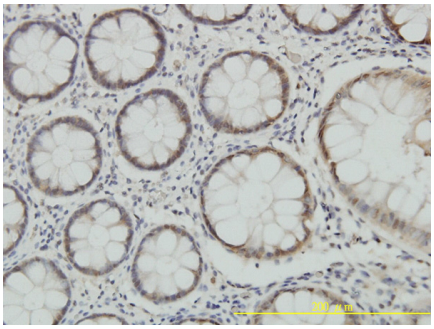
Lane 1: PSMA7 transfected lysate (Predicted MW: 27.9 KDa).



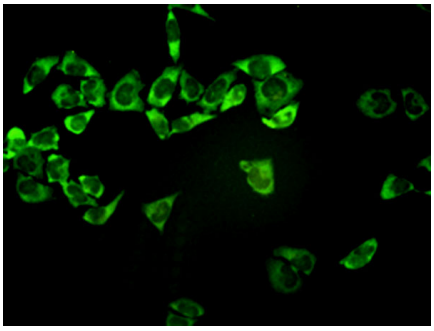
Lane 2: Non-transfected lysate.



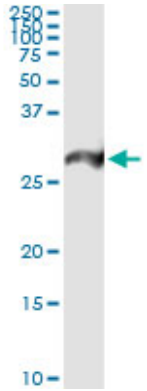
Immunoperoxidase of monoclonal antibody to PSMA7 on formalin-fixed paraffin-embedded human lung, adenosquamous cell carcinoma. [antibody concentration 5 ug/ml]



Immunoperoxidase of monoclonal antibody to PSMA7 on formalin-fixed paraffin-embedded human colon tissue. [antibody concentration 5 ug/ml]

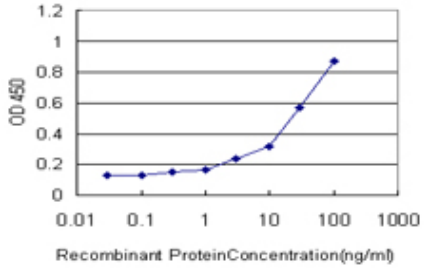


Immunofluorescence of monoclonal antibody to PSMA7 on HeLa cell. [antibody concentration 1 ~ 10 ug/ml]



Immunoprecipitation of PSMA7 transfected lysate using anti-PSMA7 monoclonal antibody and Protein A Magnetic Bead (U0007), and immunoblotted with PSMA7 MaxPab rabbit polyclonal antibody.

Detection limit for recombinant GST tagged PSMA7 is approximately 1ng/ml as a capture antibody.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.