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## Datasheet

# PSMA7 monoclonal antibody (M01), clone 1A10-3G12

Catalog Number: H00005688-M01

Regulatory Status: For research use only (RUO)

**Product Description:** Mouse monoclonal antibody raised against a full length recombinant PSMA7.

Clone Name: 1A10-3G12

**Immunogen:** PSMA7 (AAH04427, 1 a.a. ~ 248 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

#### Sequence:

MSYDRAITVFSPDGHLFQVEYAQEAVKKGSTAVGVRG RDIVVLGVEKKSVAKLQDERTVRKICALDDNVCMAFAG LTADARIVINRARVECQSHRLTVEDPVTVEYITRYIASL KQRYTQSNGRRPFGISALIVGFDFDGTPRLYQTDPSG TYHAWKANAIGRGAKSVREFLEKNYTDEAIETDDLTIKL VIKALLEVVQSGGKNIELAVMRRDQSLKILNPEEIEKYV AEIEKEKEENEKKKQKKAS

Host: Mouse

Reactivity: Human

Applications: ELISA, IF, IHC-P, IP, S-ELISA, WB-Ce, WB-Re, WB-Ti, WB-Tr

(See our web site product page for detailed applications information)

#### Protocols: See our web site at

http://www.abnova.com/support/protocols.asp or product page for detailed protocols

Isotype: IgG2b Kappa

Storage Buffer: In 1x PBS, pH 7.4

**Storage Instruction:** Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Entrez GenelD: 5688

Gene Symbol: PSMA7

Gene Alias: C6, HSPC, MGC3755, RC6-1, XAPC7

Gene Summary: 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. [provided by RefSeg]

### **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.