

PSMD4 (TLD-1A8A): sc-53529

BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by two distinct pathways. First, appropriate proteins are tagged for degradation by ubiquitination. Second, these multiubiquitinated proteins are degraded by the highly selective 26S Proteasome protein-destroying machinery. At specific stages of development, embryo- and tissue-specific components of the 26S Proteasome are formed, which are termed Rpn10a through Rpn10e, or alternatively pUB-R2 through pUB-R5. All members of this family can be generated by a single Rpn10 gene by developmentally regulated alternative splicing. The pUB-R2 subunit, originally identified as S5a (also designated antiseecretory factor and multiubiquitin chain binding protein) is ubiquitously expressed and may perform proteolysis constitutively in a wide variety of cells. pUB-R4 and pUB-R5 may have embryo- or tissue-specific expression and may play specialized roles in early embryonic development.

REFERENCES

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- Coux, O., Tanaka, K. and Goldberg, A.L. 1996. Structure and functions of the 20S and 26S Proteasomes. *Annu. Rev. Biochem.* 65: 801-847.
- Voges, D., Zwickl, P. and Baumeister, W. 1999. The 26S Proteasome: a molecular machine designed for controlled proteolysis. *Annu. Rev. Biochem.* 68: 1015-1068.
- Kawahara, H., Kasahara, M., Nishiyama, A., Ohsumi, K., Goto, T., Kishimoto, T., Saeki, Y., Yokosawa, H., Shimbara, N., Murata, S., Chiba, T., Suzuki, K. and Tanaka, K. 2000. Developmentally regulated, alternative splicing of the Rpn10 gene generates multiple forms of 26S Proteasomes. *EMBO J.* 19: 4144-4153.

CHROMOSOMAL LOCATION

Genetic locus: *Psmd4* (mouse) mapping to 3 F2.1.

SOURCE

PSMD4 (TLD-1A8A) is a mouse monoclonal antibody raised against cultured microglial cells of rat origin.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSMD4 (TLD-1A8A) is available conjugated to either phycoerythrin (sc-53529 PE) or fluorescein (sc-53529 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

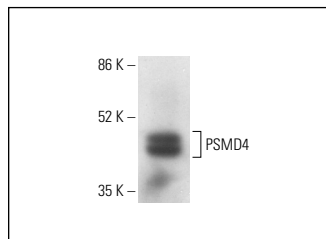
APPLICATIONS

PSMD4 (TLD-1A8A) is recommended for detection of PSMD4 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

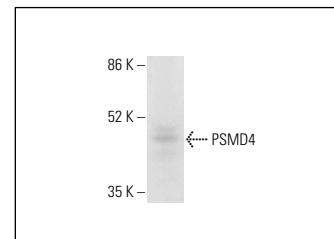
Suitable for use as control antibody for PSMD4 siRNA (m): sc-41386, PSMD4 shRNA Plasmid (m): sc-41386-SH, and PSMD4 shRNA (m) Lentiviral Particles: sc-41386-V.

Molecular Weight of PSMD4: 50 kDa.

DATA



PSMD4 (TLD-1A8A): sc-53529. Western blot analysis of PSMD4 expression in K-562 whole cell lysate. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



PSMD4 (TLD-1A8A): sc-53529. Western blot analysis of PSMD4 expression in HCT-116 whole cell lysate. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.