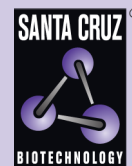


PSMD7 (F-2): sc-390705



The Power to Question

BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by their ubiquitination and subsequent degradation by the 26S Proteasome. The 26S Proteasome is a protease complex that selectively breaks down proteins that have been modified by polyubiquitin chains. It is made up of two multisubunit complexes: the 20S Proteasome chamber, which serves as the proteolytic core of the complex and two 19S regulatory particles which recognize and unfold ubiquitinated proteins. PSMD7 (proteasome (prosome, macropain) 26S subunit, non-ATPase 7), also referred to as P40, S12 or MOV34, is a regulatory subunit of the 26S Proteasome which is involved in the ATP-dependent degradation of ubiquitinated proteins. PSMD7 contains a proteolytically resistant MPN domain. MPN domain family members comprise subunits of the proteasome, COP9-signalosome and eIF3 (translation initiation factor 3) complexes. PSMD7 interacts with HIV-1 Vpr and together they function as a cellular factor linked to the G₂/M phase transition of the mammalian cell cycle.

CHROMOSOMAL LOCATION

Genetic locus: PSMD7 (human) mapping to 16q23.1; Psmc7 (mouse) mapping to 8 D3.

SOURCE

PSMD7 (F-2) is a mouse monoclonal antibody raised against amino acids 78-257 mapping within an internal region of PSMD7 of human origin.

PRODUCT

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

PSMD7 (F-2) is available conjugated to agarose (sc-390705 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390705 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390705 PE), fluorescein (sc-390705 FITC), Alexa Fluor® 488 (sc-390705 AF488), Alexa Fluor® 546 (sc-390705 AF546), Alexa Fluor® 594 (sc-390705 AF594) or Alexa Fluor® 647 (sc-390705 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390705 AF680) or Alexa Fluor® 790 (sc-390705 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PSMD7 (F-2) is recommended for detection of PSMD7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). PSMD7 (F-2) is also recommended for detection of PSMD7 in additional species, including canine, bovine and porcine.

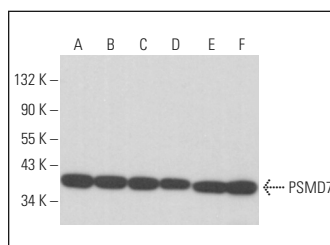
Suitable for use as control antibody for PSMD7 siRNA (h): sc-93196, PSMD7 siRNA (m): sc-152562, PSMD7 shRNA Plasmid (h): sc-93196-SH, PSMD7 shRNA Plasmid (m): sc-152562-SH, PSMD7 shRNA (h) Lentiviral Particles: sc-93196-V and PSMD7 shRNA (m) Lentiviral Particles: sc-152562-V.

Molecular Weight of PSMD7: 34 kDa.

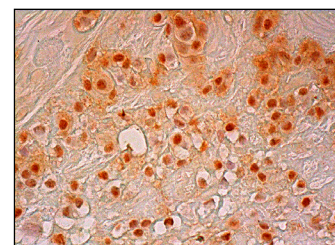
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PSMD7 (F-2): sc-390705. Western blot analysis of PSMD7 expression in Hep G2 (A), A549 (B), JAR (C), HEK293 (D), c4 (E) and NIH/3T3 (F) whole cell lysates.



PSMD7 (F-2): sc-390705. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear and cytoplasmic staining of decidual cells.

SELECT PRODUCT CITATIONS

- Jia, X., et al. 2017. Label-free proteomic analysis of exosomes derived from inducible hepatitis B virus-replicating HepAD38 cell line. *Mol. Cell. Proteomics* 16: S144-S160.
- Zhao, Y., et al. 2020. Deubiquitinase PSMD7 regulates cell fate and is associated with disease progression in breast cancer. *Am. J. Transl. Res.* 12: 5433-5448.
- Xu, X., et al. 2021. PSMD7 downregulation suppresses lung cancer progression by regulating the p53 pathway. *J. Cancer* 12: 4945-4957.

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.

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