

PSMD14 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19256b

Specification

PSMD14 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	O00487
Other Accession	O35593 , NP_005796.1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	34577
Antigen Region	258-287

PSMD14 Antibody (C-term) - Additional Information

Gene ID 10213

Other Names

26S proteasome non-ATPase regulatory subunit 14, 3419-, 26S proteasome regulatory subunit RPN11, 26S proteasome-associated PAD1 homolog 1, PSMD14, POH1

Target/Specificity

This PSMD14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 258-287 amino acids from the C-terminal region of human PSMD14.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PSMD14 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PSMD14 Antibody (C-term) - Protein Information

Name PSMD14

Synonyms POH1

Function Component of the 26S proteasome, a multiprotein complex involved in the ATP-dependent degradation of ubiquitinated proteins. This complex plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins, which could impair cellular functions, and by removing proteins whose functions are no longer required. Therefore, the proteasome participates in numerous cellular processes, including cell cycle progression, apoptosis, or DNA damage repair (PubMed:[9374539](#), PubMed:[1317798](#)). The PSMD14 subunit is a metalloprotease that specifically cleaves 'Lys-63'-linked polyubiquitin chains within the complex (PubMed:[22909820](#)). Plays a role in response to double-strand breaks (DSBs): acts as a regulator of non-homologous end joining (NHEJ) by cleaving 'Lys-63'-linked polyubiquitin, thereby promoting retention of JMJD2A/KDM4A on chromatin and restricting TP53BP1 accumulation (PubMed:[22909820](#)). Also involved in homologous recombination repair by promoting RAD51 loading (PubMed:[22909820](#)). Regulates macroautophagy by ensuring Golgi-to-ER retrograde transport through its deubiquitinating activity on K63-linked ubiquitin chains. This activity prevents the retention of essential autophagy proteins at the Golgi, enabling their trafficking to autophagosome formation sites and supporting Golgi-ER membrane recycling critical for effective autophagy (PubMed:[32210007](#)).

Tissue Location

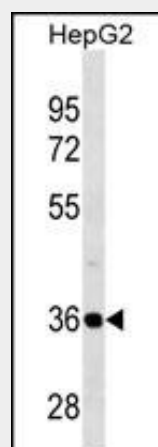
Widely expressed. Highest levels in heart and skeletal muscle.

PSMD14 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PSMD14 Antibody (C-term) - Images



PSMD14 Antibody (C-term) (Cat. #AP19256b) western blot analysis in HepG2 cell line lysates (35ug/lane). This demonstrates the PSMD14 antibody detected the PSMD14 protein (arrow).

PSMD14 Antibody (C-term) - Background

PSMD14 is a component of the 26S proteasome, a multiprotein complex that degrades proteins targeted for destruction by the ubiquitin pathway (Spataro et al., 1997 [PubMed 9374539]).

PSMD14 Antibody (C-term) - References

Byrne, A., et al. Exp. Cell Res. 316(2):258-271(2010)
Ma, Z., et al. Pediatr Int 51(5):732-735(2009)
Cooper, E.M., et al. EMBO J. 28(6):621-631(2009)
Koulich, E., et al. Mol. Biol. Cell 19(3):1072-1082(2008)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :