Datasheet for ABIN7600620

anti-PSMC1 antibody (AA 21-440)

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Overview

Quantity:	100 µg
Target:	PSMC1
Binding Specificity:	AA 21-440
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PSMC1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FACS)

Product Details

Purpose:	Anti-PSMC1 Antibody Picoband®
Immunogen:	E.coli-derived human PSMC1 recombinant protein (Position: K21-L440). Human PSMC1 shares 100% amino acid (aa) sequence identity with both mouse and rat PSMC1.
Characteristics:	Anti-PSMC1 Antibody Picoband® (ABIN7600620). Tested in WB, ICC/IF, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	PSMC1
Alternative Name:	PSMC1 (PSMC1 Products)
Background:	26S protease regulatory subunit 4, also known as 26S proteasome AAA-ATPase subunit Rpt2, is an enzyme that in humans is encoded by the PSMC1 gene. The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core 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. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase 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 one of the ATPase subunits, a member of the triple-A family of ATPases which have a chaperone-like activity. This subunit and a 20S core alpha subunit interact specifically with the hepatitis B virus X protein, a protein critical to viral replication. This subunit also interacts with the adenovirus E1A protein and this interaction alters the activity of the proteasome. Finally, this subunit interacts with ataxin-7, suggesting a role for the proteasome in the development of spinocerebellar ataxia type 7, a progressive neurodegenerative disorder.
Molecular Weight:	57 kDa
Gene ID:	5700
UniProt:	P62191
Pathways:	Mitotic G1-G1/S Phases, DNA Replication, Synthesis of DNA, Ubiquitin Proteasome Pathway

Application Details

Application Notes:	Western blot, 0.25-0.5 µg/mL, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 µg/mL, Human Flow Cytometry (Fixed), 1-3 µg/1x10^6 cells, Human ELISA, 0.1-0.5 µg/mL, - 1. Aharoni, S., Proskorovski-Ohayon, R., Krishnan, R. K., Yogev, Y., Wormser, O., Hadar, N., Bakhrat, A., Alshafee, I., Gombosh, M., Agam, N., Gradstein, L., Shorer, Z., Zarivach, R., Eskin-Schwartz, M., Abdu, U., Birk, O. S. PSMC1 variant causes a novel neurological syndrome. Clin. Genet. 102: 324-332, 2022. 2. Dubiel, W., Ferrell, K., Pratt, G., Rechsteiner, M. Subunit 4 of the 26 S protease is a member of a novel eukaryotic ATPase family. J. Biol. Chem. 267: 22699-22702,

Application Details

	1992. 3. Gross, M. B. Personal Communication. Baltimore, Md. 2/17/2011.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Adding 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.