

Product datasheet

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ARG43994 anti-PSMC4 antibody

Package: 50 μg Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes PSMC4

Tested Reactivity Hu, Ms, Rat

Tested Application ELISA, FACS, ICC/IF, IHC-P, WB

Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name PSMC4

Species Human

Immunogen Human PSMC4 recombinant protein

Conjugation Un-conjugated

Alternate Names PSMC4; Proteasome 26S Subunit, ATPase 4; TBP-7; TBP7; Tat-Binding Protein 7; MIP224; RPT3; S6;

Proteasome (Prosome, Macropain) 26S Subunit, ATPase, 4; 26S Proteasome AAA-ATPase Subunit RPT3; 26S Proteasome Regulatory Subunit 6B; MB67-Interacting Protein; Protease 26S Subunit 6; MGC13687; MGC23214; MGC8570; 26S Protease Regulatory Subunit 6B; Proteasome 26S Subunit ATPase 4; MB67

Interacting Protein

Application Instructions

Application table	Application	Dilution
	ELISA	0.1-0.5 μg/ml
	FACS	1-3 μg/1x10^6
	ICC/IF	5 μg/ml
	IHC-P	2-5 μg/ml
	WB	0.1-0.25 μg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form Liquid

Purification Affinity purified with Immunogen.

Buffer 0.9% NaCl, 0.2% Na2HPO4 and 4% Trehalose.

Stabilizer 4% Trehalose

Concentration 0.5 mg/ml

Storage instruction

For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol

PSMC4

Gene Full Name

Proteasome 26S Subunit, ATPase 4

Background

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. This gene encodes a member of the triple-A family of ATPases that is a component of the 19S regulatory subunit and plays a role in 26S proteasome assembly. The encoded protein interacts with gankyrin, a liver oncoprotein, and may also play a role in Parkinson's disease through interactions with synphilin-1. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

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. PSMC4 belongs to the heterohexameric ring of AAA (ATPases associated with diverse cellular activities) proteins that unfolds ubiquitinated target proteins that are concurrently translocated into a proteolytic chamber and degraded into peptides.

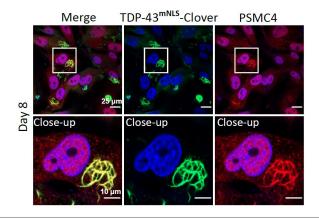
Calculated Mw

47 kDa

PTM

Acetylation, Phosphoprotein

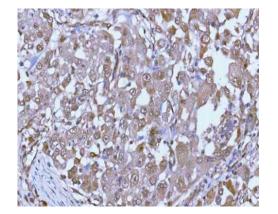
Images



ARG43994 anti-PSMC4 antibody ICC/IF image

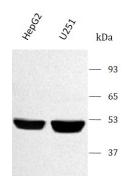
Immunofluorescence: U20S stained with ARG43994 anti-PSMC4 antibody.

From Rummens J et al. Neuron. (2025), <u>doi:</u> <u>10.1016/j.neuron.2025.03.004</u>, Fig. S6. B.



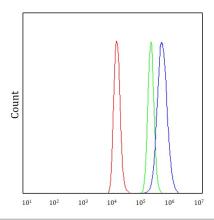
ARG43994 anti-PSMC4 antibody IHC-P image

Immunohistochemistry: Human adenocarcinoma stained with ARG43994 anti-PSMC4 antibody at 2 μ g/ml dilution.



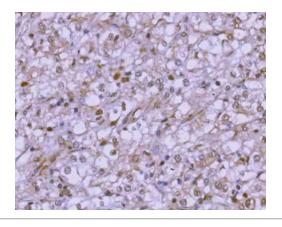
ARG43994 anti-PSMC4 antibody WB image

Western blot: HepG2 and U251 stained with ARG43994 anti-PSMC4 antibody at 0.5 $\mu g/mL$ dilution.



ARG43994 anti-PSMC4 antibody FACS image

Flow Cytometry: U20S cells stained with ARG43994 anti-PSMC4 antibody (blue) at 1 μ g/1x10^6 cells dilution.



ARG43994 anti-PSMC4 antibody IHC-P image

Immunohistochemistry: Human glioblastoma stained with ARG43994 anti-PSMC4 antibody at 2 $\mu g/ml$ dilution.

ARG43994 anti-PSMC4 antibody WB image

kDa

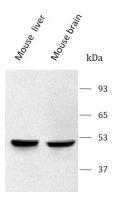
- 93

- 65

- 53

- 37

Western blot: Rat liver and Rat brain stained with ARG43994 anti-PSMC4 antibody at 0.5 $\mu g/mL$ dilution.



ARG43994 anti-PSMC4 antibody WB image

Western blot: Mouse liver and Mouse brain stained with ARG43994 anti-PSMC4 antibody at 0.5 $\mu g/mL$ dilution.