

PA28 β (L-19): sc-23642

BACKGROUND

PA28 is an interferon- γ (IFN- γ) inducible proteasome activator required for presentation of certain major histocompatibility (MHC) class I antigens. The PA28 complex is composed of two homologous subunits, α and β , which have similar catalytic properties and associate to form a hexameric ring. PA28 α and PA28 β , form a heteropolymer that binds to both ends of the 20S proteasome. In the mouse genome, two different chromosomal loci exist for PA28 β , both of which are transcribed and encode a functional PA28 β subunit. PA28 β , for proteasome activator 28 β , is also known as PSME2, REG- β and proteasome (prosome, macropain) activator subunit 2. PA28 β is a strong proteasome activator, although its affinity for the proteasome is about 10-fold less than recombinant PA28 α . The PA28 complex is expressed constitutively in antigen-presenting cells. Downregulation of PA28 results in abnormal proteasome activation and has been implicated in the development of intimal hyperplasia (IH) in animal models.

CHROMOSOMAL LOCATION

Genetic locus: PSME2 (human) mapping to 14q12; Psme2 (mouse) mapping to 14 C3.

SOURCE

PA28 β (L-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PA28 β of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23642 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

PA28 β (L-19) is recommended for detection of PA28 β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PA28 β (L-19) is also recommended for detection of PA28 β in additional species, including equine and canine.

Suitable for use as control antibody for PA28 β siRNA (h): sc-40798, PA28 β siRNA (m): sc-40799, PA28 β shRNA Plasmid (h): sc-40798-SH, PA28 β shRNA Plasmid (m): sc-40799-SH, PA28 β shRNA (h) Lentiviral Particles: sc-40798-V and PA28 β shRNA (m) Lentiviral Particles: sc-40799-V.

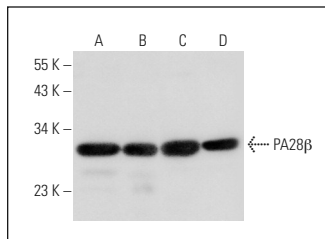
Molecular Weight of PA28 β : 28 kDa.

Positive Controls: human spleen extract: sc-363779, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

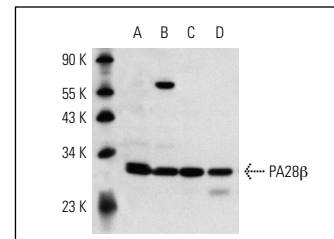
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PA28 β (L-19): sc-23642. Western blot analysis of PA28 β expression in human spleen (A) and human liver (B) tissue extracts and Hep G2 (C) and HL-60 (D) whole cell lysates.



PA28 β (L-19): sc-23642. Western blot analysis of PA28 β expression in HeLa (A), K-562 (B), RAW 264.7 (C) and NIH/3T3 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Li, J., et al. 2011. Enhancement of proteasome function by PA28 α ; over-expression protects against oxidative stress. FASEB J. 25: 883-893.

STORAGE

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

PROTOCOLS

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



Try **PA28 β (G-10): sc-390563** or **PA28 β (A8): sc-100799**, our highly recommended monoclonal alternatives to PA28 β (L-19).