

# PA28 $\beta$ (H-64): sc-292774

## BACKGROUND

PA28 is an interferon- $\gamma$  (IFN- $\gamma$ ) inducible proteasome activator required for presentation of certain major histocompatibility (MHC) class I antigens. The PA28 complex is composed of two homologous subunits,  $\alpha$  and  $\beta$ , which have similar catalytic properties and associate to form a hexameric ring. PA28 $\alpha$  and PA28 $\beta$ , form a heteropolymer that binds to both ends of the 20S Proteasome. In the mouse genome, two different chromosomal loci exist for PA28 $\beta$ , both of which are transcribed and encode a functional PA28 $\beta$  subunit. PA28 $\beta$ , for proteasome activator 28 $\beta$ , is also known as PSME2, REG- $\beta$  and proteasome (prosome, macropain) activator subunit 2. PA28 $\beta$  is a strong proteasome activator, although its affinity for the proteasome is about ten-fold less than recombinant PA28 $\alpha$ . 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.

## REFERENCES

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## CHROMOSOMAL LOCATION

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

## SOURCE

PA28 $\beta$  (H-64) is a rabbit polyclonal antibody raised against amino acids 176-239 mapping at the C-terminus of PA28 $\beta$  of human origin.

## PRODUCT

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

## APPLICATIONS

PA28 $\beta$  (H-64) is recommended for detection of PA28 $\beta$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 $\beta$  (H-64) is also recommended for detection of PA28 $\beta$  in additional species, including equine, canine, bovine and porcine.

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

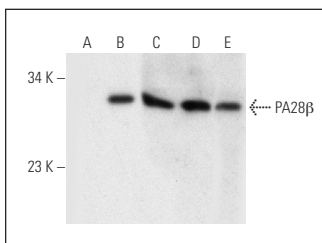
Molecular Weight of PA28 $\beta$ : 28 kDa.

Positive Controls: PA28 $\beta$  (h): 293T Lysate: sc-114006, Hep G2 cell lysate: sc-2227 or human liver extract: sc-363766.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PA28 $\beta$  (H-64): sc-292774. Western blot analysis of PA28 $\beta$  expression in non-transfected 293T: sc-117752 (A), human PA28 $\beta$  transfected 293T: sc-114006 (B), Hep G2 (D) and Raji (E) whole cell lysates and human liver tissue extract (C).

## 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.