PA28β (G-10): sc-390563

**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. PA28α and PA28β, form a heteropolymer that binds to both ends of the 20S Proteasome. In the mouse genome, two different chromosomal loci exist for PA28β, both of which are transcribed and encode a functional PA28β subunit. PA28β, for proteasome activator 28β, is also known as PSME2, REG-β and proteasome (prosome, macropain) activator subunit 2. PA28β is a strong proteasome activator, although its affinity for the proteasome is about ten-fold less than recombinant PA28α. 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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

PA28β (G-10) is a mouse monoclonal antibody raised against amino acids 176-239 mapping at the C-terminus of PA28β of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

PA28β (G-10) is recommended for detection of PA28β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

PA28β (G-10) is also recommended for detection of PA28β in additional species, including equine.


Molecular Weight of PA28β: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or Hep G2 cell lysate: sc-2227.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG1, HRP: sc-516132 or m-IgG1, HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 mouse IgG1, HRP: sc-516185 or IgG1, HRP (Cruz Marker): sc-516185 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-350850. 4) Immunohistochemistry: use mouse IgG1, HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

**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.