

PA28 γ (N-17): sc-21273

BACKGROUND

PA28 is an interferon ($\text{IFN}\gamma$) inducible proteasome activator required for presentation of certain major histocompatibility (MHC) class I antigens. PA28 γ , for Proteasome activator 28 γ , is also known as REG- γ , Ki nuclear autoantigen and Proteasome Activator Complex Subunit 3. PA28 α and PA28 β co-localize in the cell, whereas PA28 γ has a unique distribution. A functional relationship between PA28 γ and the α and β PA28 proteins is unknown. PA28 γ complexed with the proteasome may serve a function other than or in addition to activation, but PA28 γ may also have a proteasome-independent function. 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 in animal models. The PMSE3 gene maps to chromosome 17q21.31 and encodes the γ -subunit of the proteasome activator PA28.

REFERENCES

1. Tanahashi, N., et al. 1997. Molecular properties of the proteasome activator PA28 family proteins and γ -interferon regulation. *Genes Cells* 2: 195-211.
2. Wojcik, C., et al. 1998. Proteasome activator (PA28) subunits, α , β and γ (Ki antigen) in NT2 neuronal precursor cells and HeLa S3 cells. *Eur. J. Cell Biol.* 77: 151-160.
3. Kohda, K., et al. 1998. Characterization of the mouse PA28 activator complex gene family: complete organizations of the three member genes and a physical map of the approximately 150-kb region containing the α - and β -subunit genes. *J. Immunol.* 160: 4923-4935.
4. Fabunmi, R.P., et al. 2001. Interferon gamma regulates accumulation of the proteasome activator PA28 and immunoproteasomes at nuclear PML bodies. *J. Cell Sci.* 114: 29-36.
5. Murata, S., et al. 2001. Immunoproteasome assembly and antigen presentation in mice lacking both PA28 α and PA28 β . *EMBO J.* 20: 5898-5907.

CHROMOSOMAL LOCATION

Genetic locus: PSME3 (human) mapping to 17q21.31; Psme3 (mouse) mapping to 11 D.

SOURCE

PA28 γ (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PA28 γ of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS containing 0.1% sodium azide and 0.2% gelatin.

Blocking peptide available for competition studies, sc-21273 P, (100 μg peptide in 0.5 ml PBS containing 0.1% sodium azide and 100 μg BSA).

STORAGE

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

APPLICATIONS

PA28 γ (N-17) is recommended for detection of PA28 γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PA28 γ (N-17) is also recommended for detection of PA28 γ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PA28 γ siRNA (h): sc-106344, PA28 γ siRNA (m): sc-155925, PA28 γ shRNA Plasmid (h): sc-106344-SH, PA28 γ shRNA Plasmid (m): sc-155925-SH, PA28 γ shRNA (h) Lentiviral Particles: sc-106344-V and PA28 γ shRNA (m) Lentiviral Particles: sc-155925-V.

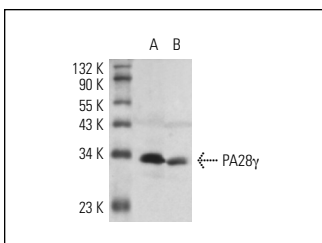
Molecular Weight of PA28 γ : 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or TT whole cell lysate: sc-364195.

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 γ (N-17): sc-21273. Western blot analysis of PA28 γ expression in HeLa (A) and TT (B) whole cell lysates.

RESEARCH USE

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



Try **PA28 γ (47): sc-136025**, our highly recommended monoclonal alternative to PA28 γ (N-17).