

PNP (H-56): sc-135163

BACKGROUND

Purine nucleoside phosphorylase (PNP), also designated inosine phosphorylase, forms a homotrimer. It belongs to the PNP/MTAP phosphorylase family of proteins. Human PNP catalyzes the reversible phosphorolysis of ribonucleosides and 2'-deoxyribonucleosides with specificity for guanine, hypoxanthine, and their analogs. PNP deficiency is a rare autosomal recessive genetic disease associated with a severe defect in T lymphocyte function and neurologic disorder in children, comprising four percent of combined immunodeficiency cases. Children with PNP deficiency are highly prone to infections, autoimmune disorders, neurological impairment, and cancer.

REFERENCES

1. Narayana, S.V., Bugg, C.E. and Ealick, S.E. 1997. Refined structure of purine nucleoside phosphorylase at 2.75 Å resolution. *Acta Crystallogr. D. Biol. Crystallogr.* 53: 131-142.
2. Fleischman, A., Hershfield, M.S., Toutain, S., Lederman, H.M., Sullivan, K.E., Fasano, M.B., Greene, J. and Winkelstein, J.A. 1998. Adenosine deaminase deficiency and purine nucleoside phosphorylase deficiency in common variable immunodeficiency. *Clin. Diagn. Lab. Immunol.* 5: 399-400.

CHROMOSOMAL LOCATION

Genetic locus: PNP (human) mapping to 14q11.2; Pnp1/Pnp2 (mouse) mapping to 14 C1.

SOURCE

PNP (H-56) is a rabbit polyclonal antibody raised against amino acids 95-150 mapping within an internal region of PNP of human origin.

PRODUCT

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

APPLICATIONS

PNP (H-56) is recommended for detection of PNP 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).

PNP (H-56) is also recommended for detection of PNP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PNP siRNA (h): sc-45991, PNP siRNA (m): sc-45992, PNP shRNA Plasmid (h): sc-45991-SH, PNP shRNA Plasmid (m): sc-45992-SH, PNP shRNA (h) Lentiviral Particles: sc-45991-V and PNP shRNA (m) Lentiviral Particles: sc-45992-V.

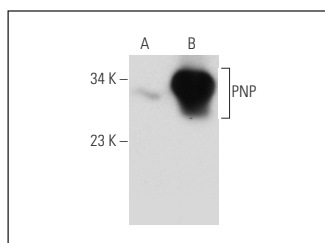
Molecular Weight of PNP: 32 kDa.

Positive Controls: mouse spleen extract: sc-2391 or PNP (h): 293T Lysate: sc-111683.

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



PNP (H-56): sc-135163. Western blot analysis of PNP expression in non-transfected: sc-117752 (A) and human PNP transfected: sc-111683 (B) 293T whole cell lysates.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **PNP (F-10): sc-365551** or **PNP (H-7): sc-365081**, our highly recommended monoclonal alternatives to PNP (H-56).