

PRPSAP2 (A-1): sc-376025

BACKGROUND

Phosphoribosylpyrophosphate (PRPP) is an essential substrate and critical control factor for the synthesis of purine and pyrimidine nucleotides, histidine, tryptophan and NAD. The formation of phosphoribosylpyrophosphate from ATP and ribose-5-phosphate is catalyzed by the enzyme phosphoribosylpyrophosphate synthetase (PRS), which exists as a complex with two catalytic subunits, PRPS1 and PRPS2, and two associated subunits, PRPSAP1 and PRPSAP2. PRPSAP1 (phosphoribosyl pyrophosphate synthetase-associated protein 1), also known as PAP39, is a 356 amino acid ubiquitously expressed protein belonging to the ribose-phosphate pyrophosphokinase family. PRPSAP1 may play a regulatory role in 5-phosphoribose 1-diphosphate synthesis and is encoded by a gene mapping to human chromosome 17q25.1. PRPSAP2 (phosphoribosyl pyrophosphate synthetase-associated protein 2), also known as PAP41, is a 369 amino acid protein that is ubiquitously expressed and interacts with PRPS1 and PRPS2.

REFERENCES

1. Avdienko, I.D., et al. 1983. Range of the transmissivity of the genetic transfer factors pAP38, pAP39, pAP41 and pAP42. *Biull. Eksp. Biol. Med.* 95: 76-77.
2. Tatibana, M. 1996. Mammalian phosphoribosylpyrophosphate synthetase. *Nippon Rinsho* 54: 3195-3201.
3. Fujimori, S. 1996. PRPP synthetase superactivity. *Nippon Rinsho* 54: 3309-3314.

CHROMOSOMAL LOCATION

Genetic locus: PRPSAP2 (human) mapping to 17p11.2; Prpsap2 (mouse) mapping to 11 B2.

SOURCE

PRPSAP2 (A-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-23 at the N-terminus of PRPSAP2 of human origin.

PRODUCT

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

PRPSAP2 (A-1) is available conjugated to agarose (sc-376025 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376025 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376025 PE), fluorescein (sc-376025 FITC), Alexa Fluor® 488 (sc-376025 AF488), Alexa Fluor® 546 (sc-376025 AF546), Alexa Fluor® 594 (sc-376025 AF594) or Alexa Fluor® 647 (sc-376025 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376025 AF680) or Alexa Fluor® 790 (sc-376025 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376025 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PRPSAP2 (A-1) is recommended for detection of PRPSAP2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PRPSAP2 siRNA (h): sc-94203, PRPSAP2 siRNA (m): sc-152504, PRPSAP2 shRNA Plasmid (h): sc-94203-SH, PRPSAP2 shRNA Plasmid (m): sc-152504-SH, PRPSAP2 shRNA (h) Lentiviral Particles: sc-94203-V and PRPSAP2 shRNA (m) Lentiviral Particles: sc-152504-V.

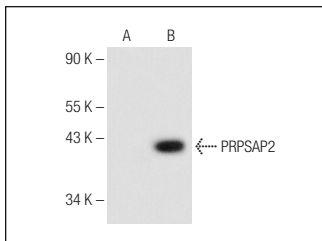
Molecular Weight of PRPSAP2: 41 kDa.

Positive Controls: PRPSAP2 (m): 293T Lysate: sc-125860.

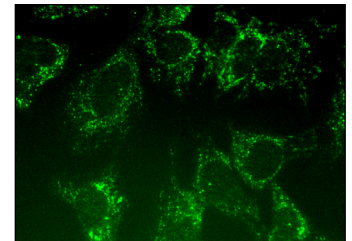
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PRPSAP2 (A-1): sc-376025. Western blot analysis of PRPSAP2 expression in non-transfected: sc-117752 (A) and mouse PRPSAP2 transfected: sc-125860 (B) 293T whole cell lysates.



PRPSAP2 (A-1): sc-376025. Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoplasmic localization.

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 for detailed protocols and support products.