

IMPDH (A-18): sc-46146

BACKGROUND

A member of the GMPR family, inosine-5'-monophosphate dehydrogenase 1 (IMPDH1) functions in the regulation of cell growth by catalyzing the rate-limiting step in the *de novo* synthesis of guanine nucleotides. IMPDH1 is a ubiquitously expressed homotetramer that plays an important role in cyclic nucleoside metabolism within photoreceptors. Expression of IMPDH1 is the main type found in normal leukocytes, while IMPDH2 predominates in tumors. Mutations in IMPDH1 are associated with the autosomal dominant retinitis pigmentosa type 10 (RP10), as well as the development of malignant tumors. Analysis of mutant IMPDH1 suggests that protein misfolding and aggregation leads to the severe phenotype rather than reduced IMPDH1 activity. Therefore, IMPDH1 may be a potential therapeutic target based upon a strategy combining simultaneous suppression of IMPDH1 transcripts with supplementation of GTP within retinal tissues.

CHROMOSOMAL LOCATION

Genetic locus: IMPDH1 (human) mapping to 7q32.1, IMPDH2 (human) mapping to 3p21.31; *Impdh1* (mouse) mapping to 6 A3.3, *Impdh2* (mouse) mapping to 9 F2.

SOURCE

IMPDH (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IMPDH 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.

Blocking peptide available for competition studies, sc-46146 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

IMPDH (A-18) is recommended for detection of IMPDH1 and IMPDH2 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).

IMPDH (A-18) is also recommended for detection of IMPDH1 and IMPDH2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for IMPDH siRNA (h): sc-45679, IMPDH siRNA (m): sc-45680, IMPDH shRNA Plasmid (h): sc-45679-SH IMPDH shRNA Plasmid (m): sc-45680-SH, IMPDH shRNA (h) Lentiviral Particles: sc-45679-V and IMPDH shRNA (m) Lentiviral Particles: sc-45680-V.

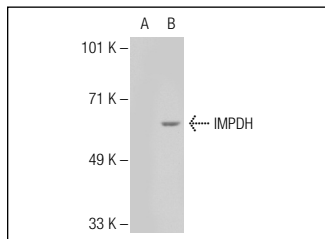
Molecular Weight of IMPDH: 55 kDa.

Positive Controls: IMPDH2 (h): 293T Lysate: sc-113577.

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



IMPDH (A-18): sc-46146. Western blot analysis of IMPDH expression in non-transfected: sc-117752 (A) and human IMPDH transfected: sc-113577 (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.

PROTOCOLS

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



Try **IMPDH (F-6): sc-166551** or **IMPDH (D-3): sc-365171**, our highly recommended monoclonal alternatives to IMPDH (A-18).