

IMPDH (C-20): sc-46147

BACKGROUND

A member of the GMPR family, inosine-5'-monophosphate dehydrogenase 1 (IMPDH-1) functions in the regulation of cell growth by catalyzing the rate-limiting step in the *de novo* synthesis of guanine nucleotides. IMPDH-1 is a ubiquitously expressed homotetramer that plays an important role in cyclic nucleoside metabolism within photoreceptors. Expression of IMPDH-1 is the main type found in normal leukocytes, while IMPDH-2 predominates in tumors. Mutations in IMPDH-1 are associated with the autosomal dominant retinitis pigmentosa type 10 (RP10), as well as the development of malignant tumors. Analysis of mutant IMPDH-1 suggests that protein misfolding and aggregation leads to the severe phenotype rather than reduced IMPDH-1 activity. Therefore, IMPDH-1 may be a potential therapeutic target based upon a strategy combining simultaneous suppression of IMPDH-1 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 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at 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-46147 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 (C-20) 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 (C-20) 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.

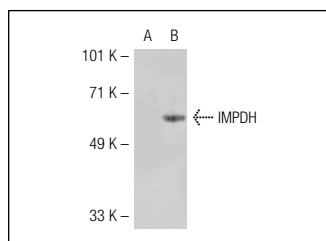
Molecular Weight of IMPDH: 55 kDa.

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 (C-20): sc-46147. 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.

MONOS
Satisfaction
Guaranteed

Try **IMPDH (F-6): sc-166551** or **IMPDH (D-3): sc-365171**, our highly recommended monoclonal alternatives to IMPDH (C-20).