

# GPI (H-300): sc-33777

## BACKGROUND

Glucose-6-phosphate isomerase (GPI) has many other names, including phosphohexose isomerase (PHI), neuroleukin (NLK) and spermantigen-36 (SA-36). GPI is a cytoplasmic homodimer belonging to the GPI family. It is a neurotrophic factor for spinal and sensory neurons and is involved in glycolysis and gluconeogenesis. Defects or mutations in GPI can cause hereditary nonspherocytic hemolytic anemia (HA), hydrops fetalis, immediate neonatal death and neurological impairment.

## REFERENCES

1. Beutler, E., et al. 1997. Glucosephosphate isomerase (GPI) deficiency mutations associated with hereditary nonspherocytic hemolytic anemia (HNSHA). *Blood Cells Mol. Dis.* 23: 402-409.
2. Kugler, W., et al. 1998. Molecular basis of neurological dysfunction coupled with haemolytic anemia in human glucose-6-phosphate isomerase (GPI) deficiency. *Hum. Genet.* 103: 450-454.

## CHROMOSOMAL LOCATION

Genetic locus: GPI (human) mapping to 19q13.11; Gpi1 (mouse) mapping to 7 B1.

## SOURCE

GPI (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of GPI 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

GPI (H-300) is recommended for detection of GPI 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GPI (H-300) is also recommended for detection of GPI in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPI siRNA (h): sc-43810, GPI siRNA (m): sc-44813, GPI shRNA Plasmid (h): sc-43810-SH, GPI shRNA Plasmid (m): sc-44813-SH, GPI shRNA (h) Lentiviral Particles: sc-43810-V and GPI shRNA (m) Lentiviral Particles: sc-44813-V.

Molecular Weight (predicted) of GPI: 63 kDa.

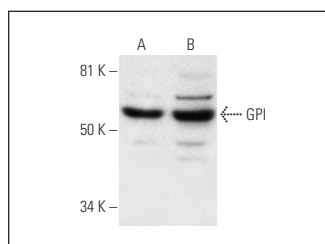
Molecular Weight (observed) of GPI: 55 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

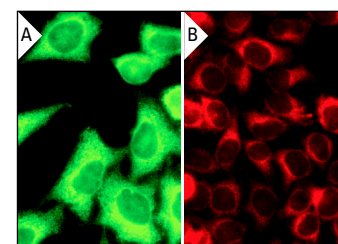
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



GPI (H-300): sc-33777. Western blot analysis of GPI expression in HEK293 (A) and HeLa (B) whole cell lysates.



GPI (H-300): sc-33777. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (B).

## SELECT PRODUCT CITATIONS

1. Yang, Y., et al. 2012. Autocrine motility factor receptor is involved in the process of learning and memory in the central nervous system. *Behav. Brain Res.* 229: 412-418.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **GPI (H-10): sc-365066** or **GPI (E-4): sc-398382**, our highly recommended monoclonal alternatives to GPI (H-300).