

GRHPR (G-14): sc-162899

BACKGROUND

GRHPR (glyoxylate reductase/hydroxypyruvate reductase), also known as GLXR, is a member of the D-isomer specific 2-hydroxyacid dehydrogenase family of proteins. Localizing to the cytosol, GRHPR is ubiquitously expressed with highest expression levels found in liver. Functioning as a homodimer, GRHPR plays a role in metabolism by removing the highly reactive two carbon acid by-product glyoxylate through a reduction reaction which yields glycolate. In addition, GRHPR contains hydroxypyruvate reductase activity and D-glycerate dehydrogenase activity. Mutations in the gene encoding GRHPR that impair its ability to reduce glyoxylate can result in primary hyperoxaluria type II (PH2 or HP2), a disease characterized by the formation of kidney stones, increased urinary excretion of L-glycerate and oxalate and renal failure.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GRHPR (human) mapping to 9p13.2; Grhpr (mouse) mapping to 4 B1.

RESEARCH USE

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

SOURCE

GRHPR (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GRHPR of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-162899 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GRHPR (G-14) is recommended for detection of GRHPR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

GRHPR (G-14) is also recommended for detection of GRHPR in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for GRHPR siRNA (h): sc-92675, GRHPR siRNA (m): sc-145763, GRHPR shRNA Plasmid (h): sc-92675-SH, GRHPR shRNA Plasmid (m): sc-145763-SH, GRHPR shRNA (h) Lentiviral Particles: sc-92675-V and GRHPR shRNA (m) Lentiviral Particles: sc-145763-V.

Molecular Weight of GRHPR: 36 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 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 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) 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.

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.