

GFRP (C-16): sc-22697

BACKGROUND

GTP cyclohydrolase I feedback regulatory protein (GFRP) is encoded by the gene GCHFR. GFRP mediates feedback inhibition of GTP cyclohydrolase I activity by tetrahydrobiopterin. GFRP also acts as a mediator for the stimulatory effect of phenylalanine on enzyme activity. L-phenylalanine reverses this inhibition. Cross-linking experiments have shown that GFRP is usually expressed as a homodimer or pentamer.

REFERENCES

- Hochstrasser, D.F., et al. 1992. Human liver protein map: a reference database established by microsequencing and gel comparison. *Electrophoresis* 13: 992-1001.
- Milstien, S., et al. 1996. Purification and cloning of the GTP cyclohydrolase I feedback regulatory protein, GFRP. *J. Biol. Chem.* 271: 19743-19751.
- Yoneyama, T., et al. 1997. GTP cyclohydrolase I feedback regulatory protein is a pentamer of identical subunits. Purification, cDNA cloning, and bacterial expression. *J. Biol. Chem.* 272: 9690-9696.
- Bader, G., et al. 2001. Crystal structure of rat GTP cyclohydrolase I feedback regulatory protein, GFRP. *J. Mol. Biol.* 312: 1051-1057.

CHROMOSOMAL LOCATION

Genetic locus: GCHFR (human) mapping to 15q15.1; Gchfr (mouse) mapping to 2 E5.

SOURCE

GFRP (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GFRP 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-22697 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GFRP (C-16) is recommended for detection of GFRP 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).

GFRP (C-16) is also recommended for detection of GFRP in additional species, including equine, canine, bovine and porcine.

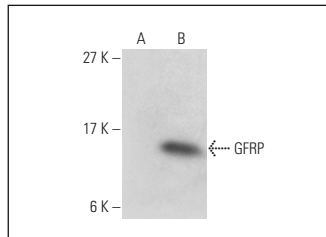
Suitable for use as control antibody for GFRP siRNA (h): sc-105393, GFRP siRNA (m): sc-145387, GFRP shRNA Plasmid (h): sc-105393-SH, GFRP shRNA Plasmid (m): sc-145387-SH, GFRP shRNA (h) Lentiviral Particles: sc-105393-V and GFRP shRNA (m) Lentiviral Particles: sc-145387-V.

Positive Controls: GFRP (h): 293T Lysate: sc-372605.

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



GFRP (C-16): sc-22697. Western blot analysis of GFRP expression in non-transfected: sc-117752 (A) and human GFRP transfected: sc-372605 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Berbee, M., et al. 2011. Reduction of radiation-induced vascular nitrosative stress by the vitamin E analog γ -tocotrienol: evidence of a role for tetrahydrobiopterin. *Int. J. Radiat. Oncol. Biol. Phys.* 79: 884-891.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **GFRP (D-11): sc-514098** or **GFRP (A-8): sc-514199**, our highly recommended monoclonal alternatives to GFRP (C-16).