

# GFRP (h): 293T Lysate: sc-372605

## 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

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2. Milstien, S., Jaffe, H., Kowlessur, D. and Bonner, T.I. 1996. Purification and cloning of the GTP cyclohydrolase I feedback regulatory protein, GFRP. *J. Biol. Chem.* 271: 19743-19751.
3. Yoneyama, T., Brewer, J.M. and Hatakeyama, K. 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.
4. Bader, G., Schiffmann, S., Herrmann, A., Fischer, M., Gütlisch, M., Auerbach, G., Ploom, T., Bacher, A., Huber, R. and Lemm, T. 2001. Crystal structure of rat GTP cyclohydrolase I feedback regulatory protein, GFRP. *J. Mol. Biol.* 312: 1051-1057.
5. Maita, N., Hatakeyama, K., Okada, K. and Hakoshima, T. 2004. Structural basis of biopterin-induced inhibition of GTP cyclohydrolase I by GFRP, its feedback regulatory protein. *J. Biol. Chem.* 279: 51534-51540.
6. SWISS-PROT/TrEMBL (P30047). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
7. <http://harvester.embl.de/harvester/P300/P30047.htm>

## CHROMOSOMAL LOCATION

Genetic locus: GCHFR (human) mapping to 15q15.1.

## PRODUCT

GFRP (h): 293T Lysate represents a lysate of human GFRP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## RESEARCH USE

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

## APPLICATIONS

GFRP (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GFRP antibodies. Recommended use: 10-20 µl per lane.

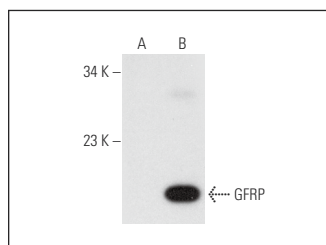
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GFRP (D-11): sc-514098 is recommended as a positive control antibody for Western Blot analysis of enhanced human GFRP expression in GFRP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



GFRP (D-11): sc-514098. Western blot analysis of GFRP expression in non-transfected: sc-117752 (A) and human GFRP transfected: sc-372605 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.