

# G6f (Q-21): sc-101962

## BACKGROUND

G6f, also known as lymphocyte antigen 6 complex locus protein G6f, is a single-pass type I membrane protein belonging to the immunoglobulin (Ig) superfamily. Located in the class III region of the major histocompatibility complex (MHC), the G6f gene lies in a cluster of genes encoding cell-surface proteins that play a role in the immune system and cellular recognition. G6f functions as a downstream effector of GRB2 and GRB7, and, in humans, it interacts with GRB2 and GRB7 through the phosphorylation of a tyrosine residue (Tyr 281) in the intracellular tail of G6f. This interaction is also mediated by the SH2 domain of GRB2 and possibly that of GRB7. G6f is a 297 amino acid protein, and it forms a disulfide-linked homodimer.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611404. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. De Vet, E.C., Aguado, B. and Campbell, R.D. 2003. Adaptor signalling proteins GRB2 and GRB7 are recruited by human G6f, a novel member of the immunoglobulin superfamily encoded in the MHC. *Biochem. J.* 375: 207-213.
3. Hauptmann, G. and Bahram, S. 2004. Genetics of the central MHC. *Curr. Opin. Immunol.* 16: 668-672.
4. Lewandrowski, U., Moebius, J., Walter, U. and Sickmann, A. 2006. Elucidation of N-glycosylation sites on human platelet proteins: a glyco-proteomic approach. *Mol. Cell Proteomics* 5: 226-233.
5. García, A., Senis, Y.A., Antrobus, R., Hughes, C.E., Dwek, R.A., Watson, S.P. and Zitzmann, N. 2006. A global proteomics approach identifies novel phosphorylated signaling proteins in GPVI-activated platelets: involvement of G6f, a novel platelet GRB2-binding membrane adapter. *Proteomics* 6: 5332-5343.

## CHROMOSOMAL LOCATION

Genetic locus: LY6G6F (human) mapping to 6p21.33.

## SOURCE

G6f (Q-21) is a purified rabbit polyclonal antibody raised against G6f of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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

## APPLICATIONS

G6f (Q-21) is recommended for detection of G6f of 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).

Suitable for use as control antibody for G6f siRNA (h): sc-95654, G6f shRNA Plasmid (h): sc-95654-SH and G6f shRNA (h) Lentiviral Particles: sc-95654-V.

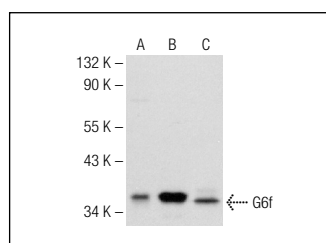
Molecular Weight of G6f: 29 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or A-431 whole cell lysate: sc-2201.

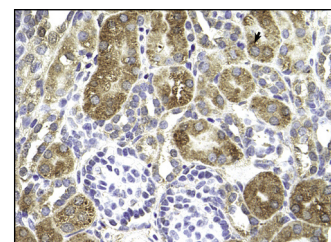
## RECOMMENDED SECONDARY REAGENTS

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



G6f (Q-21): sc-101962. Western blot analysis of G6f expression in K-562 (A) and A-431 (B) nuclear extracts and Jurkat whole cell lysate (C).



G6f (Q-21): sc-101962. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining.

## RESEARCH USE

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