

GNB1L (Q-25): sc-133630



The Power to Question

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. GNB1L (guanine nucleotide binding protein (G protein), β polypeptide 1-like), also known as FKSG1, GY2, KIAA1645 or WDR14, is a 327 amino acid protein that exists as two alternatively spliced isoforms and contains six WD repeats. Expressed ubiquitously with highest levels present in spleen, liver, heart, kidney, pancreas and skeletal muscle, GNB1L is thought to play a role in the etiology of the velocardiofacial/DiGeorge syndrome (VCFS/DGS), a developmental disorder that is the result of a deletion on chromosome 22 and is associated with a variety of facial anomalies and cardiac malformations.

REFERENCES

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3. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.
4. Gong, L., et al. 2000. GNB1L, a gene deleted in the critical region for DiGeorge syndrome on 22q11, encodes a G protein β -subunit-like polypeptide. *Biochim. Biophys. Acta* 1494: 185-188.
5. Funke, B., et al. 2001. Isolation and characterization of a novel gene containing WD40 repeats from the region deleted in velo-cardio-facial/DiGeorge syndrome on chromosome 22q11. *Genomics* 73: 264-271.
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7. Williams, N.M., et al. 2008. Strong evidence that GNB1L is associated with schizophrenia. *Hum. Mol. Genet.* 17: 555-566.
8. Ishiguro, H., et al. 2008. Supportive evidence for reduced expression of GNB1L in schizophrenia. *Schizophr Bull.* E-published.

CHROMOSOMAL LOCATION

Genetic locus: GNB1L (human) mapping to 22q11.21; Gnb1l (mouse) mapping to 16 A3.

SOURCE

GNB1L (Q-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic GNB1L peptide of human origin.

PRODUCT

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

APPLICATIONS

GNB1L (Q-25) is recommended for detection of GNB1L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 GNB1L siRNA (h): sc-75157, GNB1L siRNA (m): sc-145653, GNB1L shRNA Plasmid (h): sc-75157-SH, GNB1L shRNA Plasmid (m): sc-145653-SH, GNB1L shRNA (h) Lentiviral Particles: sc-75157-V and GNB1L shRNA (m) Lentiviral Particles: sc-145653-V.

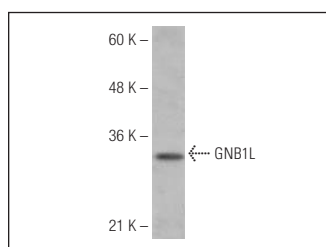
Molecular Weight of GNB1L: 36 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

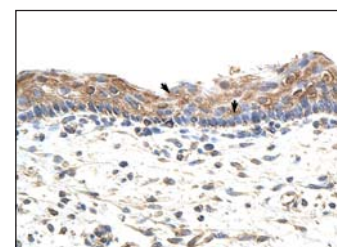
RECOMMENDED SECONDARY REAGENTS

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



GNB1L (Q-25): sc-133630. Western blot analysis of GNB1L expression in Jurkat whole cell lysate.



GNB1L (Q-25): sc-133630. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human skin tissue showing cytoplasmic localization.

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.