SANTA CRUZ BIOTECHNOLOGY, INC.

GIGYF2 (G-5): sc-514546

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GIGYF2 (GRB10 interacting GYF protein 2), also known as GYF2, PERQ2, PERQ3, PARK11 or TNRC15, is a 1,299 amino acid protein that may be involved in the regulation of tyrosine kinase receptor signaling, including IGF-I and Insulin receptors. Belonging to the PERQ family of proteins, GIGYF2 contains long stretches of glutamine and glutamic acid residues. Mutations in the gene encoding GIGYF2 are the cause of Parkinson disease type 11 (PARK11), which is characterized by bradykinesia, resting tremor, muscular rigidity and postural instability. Parkinson's disease involves the loss of dopaminergic neurons in the substantia nigra and the presence of Lewy bodies (intraneuronal accumulations of aggregated proteins), in surviving neurons in various areas of the brain. PARK11 may show age-dependent or reduced penetrance. GIGYF2 exists as two alternatively spliced isoforms.

REFERENCES

1. Lautier, C., et al. 2008. Mutations in the GIGYF2 (TNRC15) gene at the PARK11 locus in familial Parkinson disease. Am. J. Hum. Genet. 82: 822-833.
2. Bonifati, V. 2009. Is GIGYF2 the defective gene at the PARK11 locus? Curr. Neurol. Neurosci. Rep. 9: 185-187.
3. Bras, J., et al. 2009. Lack of replication of association between GIGYF2 variants and Parkinson disease. Hum. Mol. Genet. 18: 341-346.
4. Sutherland, G.T., et al. 2009. Haplotype analysis of the PARK 11 gene, GIGYF2, in sporadic Parkinson's disease. Mov. Disord. 24: 449-452.
5. Lesage, S., et al. 2009. Follow-up study of the GIGYF2 gene in French families with Parkinson's disease. Neurobiol. Aging 31: 1069-1071.
6. Meeus, B., et al. 2009. GIGYF2 in Parkinson's disease: Innocent until proven otherwise. Neurobiol. Aging 31: 1072-1074.
7. Zhang, Y., et al. 2009. GIGYF2 Asn56Ser mutation is rare in Chinese Parkinson's disease patients. Neurosci. Lett. 463: 172-175.

CHROMOSOMAL LOCATION

Genetic locus: GIGYF2 (human) mapping to 2q37.1; Gigyf2 (mouse) mapping to 1 D.

SOURCE

GIGYF2 (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 664-687 within an internal region of GIGYF2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514546 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

GIGYF2 (G-5) is recommended for detection of GIGYF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for GIGYF2 siRNA (h): sc-94610, GIGYF2 siRNA (m): sc-145397, GIGYF2 shRNA Plasmid (h): sc-94610-SH, GIGYF2 shRNA Plasmid (m): sc-145397-SH, GIGYF2 shRNA (h) Lentiviral Particles: sc-94610-V and GIGYF2 shRNA (m) Lentiviral Particles: sc-145397-V.

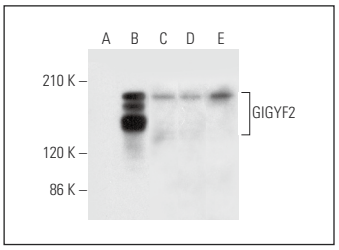
Molecular Weight of GIGYF2: 150 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, GIGYF2 (h2): 293T Lysate: sc-177283 or COLO 205 whole cell lysate: sc-364177.

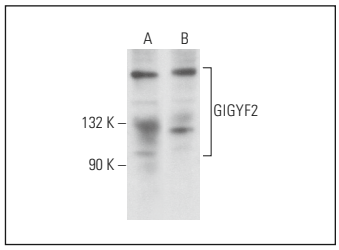
RECOMMENDED SECONDARY REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GIGYF2 (G-5): sc-514546. Western blot analysis of GIGYF2 expression in non-transfected 293T: sc-117752 (**A**), human GIGYF2 transfected 293T: sc-177283 (**B**), Jurkat (**C**), COLO 205 (**D**) and HeLa (**E**) whole cell lysates.



GIGYF2 (G-5): sc-514546. Western blot analysis of GIGYF2 expression in MDA-MB-231 (**A**) and COLO 205 (**B**) whole cell lysates.

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 for detailed protocols and support products.