SANTA CRUZ BIOTECHNOLOGY, INC.

GRK 6 (C-20): sc-566

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Heterotrimeric G protein-mediated signal transduction is a dynamically regulated process with the intensity of signal decreasing over time despite the continued presence of the agonist. This phenomenon, referred to as agonist-mediated desensitization, involves phosphorylation of the receptor by two classes of enzymes. The first class is comprised of the second messenger-regulated kinases, such as cAMP dependent protein kinase A and protein kinase C. The second class includes the G protein-coupled receptor kinases (GRKs). At least seven members of the GRK family have been identified. These include rhodopsin kinase (GRK 1), two forms of β-adrenergic receptor kinase: GRK 2 (βARK, βARK1) and GRK 3 (βARK2), IT-11 (GRK 4), GRK 5, GRK 6 and GRK 7. Phosphorylation of receptors by GRKs appears to be strictly dependent on the receptor being in its agonist-activated state.

CHROMOSOMAL LOCATION

Genetic locus: GRK6 (human) mapping to 5q35.3; Grk6 (mouse) mapping to 13 B1.

SOURCE

GRK 6 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of GRK 6 of human origin.

PRODUCT

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

GRK 6 (C-20) is available conjugated to agarose (sc-566 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-566 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GRK 6 (C-20) is recommended for detection of GRK 6 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), 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).

GRK 6 (C-20) is also recommended for detection of GRK 6 in additional species, including bovine and avian.

Suitable for use as control antibody for GRK 6 siRNA (h): sc-35518, GRK 6 siRNA (m): sc-35519, GRK 6 shRNA Plasmid (h): sc-35518-SH, GRK 6 shRNA Plasmid (m): sc-35519-SH, GRK 6 shRNA (h) Lentiviral Particles: sc-35518-V and GRK 6 shRNA (m) Lentiviral Particles: sc-35519-V.

Molecular Weight of GRK 6: 66 kDa.

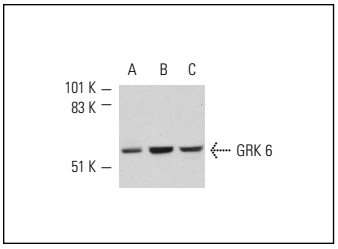
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

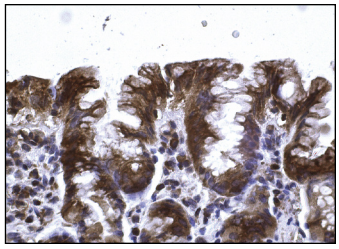
RESEARCH USE

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

DATA



GRK 6 (C-20): sc-566. Western blot analysis of GRK 6 expression in Jurkat (**A**), BJAB (**B**) and Ramos (**C**) whole cell lysates.



GRK 6 (C-20): sc-566. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Lazari, M.F., et al. 1999. Role of G protein-coupled receptor kinases on the agonist-induced phosphorylation and internalization of the follitropin receptor. Mol. Endocrinol. 13: 866-878.
2. Bychkov, E., et al. 2010. Sex differences in the activity of signalling pathways and expression of G protein-coupled receptor kinases in the neonatal ventral hippocampal lesion model of schizophrenia. Int. J. Neuropsychopharmacol. 14: 1-15.
3. Aguado-Llera, D., et al. 2010. Role of ethanolamine phosphate in the hippocampus of rats with acute experimental autoimmune encephalomyelitis. Neurochem. Int. 58: 22-34.
4. Ahmed, M.R., et al. 2010. Lentiviral overexpression of GRK6 alleviates L-dopa-induced dyskinesia in experimental Parkinson's disease. Sci. Transl. Med. 2: 28.
5. Machiya, Y., et al. 2010. Phosphorylated alpha-synuclein at Ser-129 is targeted to the proteasome pathway in a ubiquitin-independent manner. J. Biol. Chem. 285: 40732-40744.
6. Ghosh, M. and Schonbrunn, A. 2011. Differential temporal and spatial regulation of somatostatin receptor phosphorylation and dephosphorylation. J. Biol. Chem. 286: 13561-13573.
7. Bychkov, E.R., et al. 2011. Reduced expression of G protein-coupled receptor kinases in schizophrenia but not in schizoaffective disorder. Neurobiol. Dis. 44: 248-258.
8. Nedi, T., et al. 2011. Tissue dependent differences in G protein-coupled receptor kinases associated with 5-HT4 receptor desensitization in the rat gastro-intestinal tract. Biochem. Pharmacol. 81: 123-133.