

GRK 2/3 (H-222): sc-8329

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 c-AMP 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 (β ARK, β ARK1) and GRK 3 (β ARK2), 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: ADRBK1 (human) mapping to 11q13.2, ADRBK2 (human) mapping to 22q12.1; Adrbk1 (mouse) mapping to 19 A, Adrbk2 (mouse) mapping to 5 F.

SOURCE

GRK 2/3 (H-222) is a rabbit polyclonal antibody raised against amino acids 468-689 mapping at the C-terminus of GRK 2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GRK 2/3 (H-222) is recommended for detection of GRK 2 and GRK 3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GRK 2/3 (H-222) is also recommended for detection of GRK 2 and GRK 3 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of GRK 2: 80 kDa.

Molecular Weight of GRK 3: 83 kDa.

Positive Controls: GRK 2 (h2): 293T Lysate: sc-115352, Ramos cell lysate: sc-2216 or A-431 whole cell lysate: sc-2201.

STORAGE

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

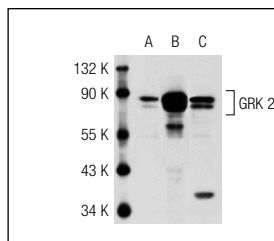
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

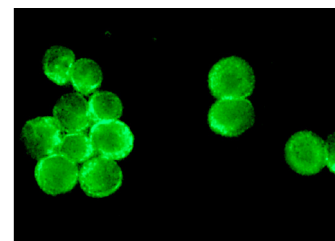
RESEARCH USE

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

DATA



GRK 2/3 (H-222): sc-8329. Western blot analysis of GRK 2 expression in non-transfected 293T: sc-117752 (A), human GRK 2 transfected 293T: sc-115352 (B) and A-431 (C) whole cell lysates.



GRK 2/3 (H-222): sc-8329. Immunofluorescence staining of methanol-fixed Ramos cells showing cytoplasmic and membrane staining.

SELECT PRODUCT CITATIONS

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- Ozsoy, H.Z., et al. 2005. Orphanin FQ/Nociceptin potentiates [D-Ala², N-Me-Phe⁴, Gly⁵-ol]-enkephalin-induced μ -opioid receptor phosphorylation. *Mol. Pharmacol.* 68: 447-456.
- Janoshazi, A., et al. 2007. Modified receptor internalization upon coexpression of 5-HT1B receptor and 5-HT2B receptors. *Mol. Pharmacol.* 71: 1463-1474.
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- Delgado-Martín, C., et al. 2011. Chemokine CXCL12 uses CXCR4 and a signaling core formed by bifunctional Akt, extracellular signal-regulated kinase (ERK)1/2, and mammalian target of rapamycin complex 1 (mTORC1) proteins to control chemotaxis and survival simultaneously in mature dendritic cells. *J. Biol. Chem.* 286: 37222-37236.



Try **GRK 2 (C-9): sc-13143** or **GRK 3 (C-11): sc-365197**, our highly recommended monoclonal alternatives to GRK 2/3 (H-222). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **GRK 2 (C-9): sc-13143**.