

β-Arrestin-1 (K-16): sc-9182

BACKGROUND

The members of the G protein-coupled receptor family are distinguished by their slow transmitting response to ligand binding. These seven transmembrane proteins include the adrenergic, serotonin and dopamine receptors. The effect of the signaling molecule can be excitatory or inhibitory depending on the type of receptor to which it binds. Members of the β-Arrestin family regulate receptor binding to G proteins. β-Arrestins have been found to be located at postsynaptic sites, where they are thought to act in concert with βARK (βARK1, also designated GRK 2, or βARK2, also designated GRK 3) to regulate G protein-coupled neurotransmitter receptors. Expression of β-Arrestin-1 and β-Arrestin-2 is seen predominantly in spleen and neuronal tissues. It has been shown that β-Arrestin-1 expression is modulated by intracellular cAMP, which may be a novel mechanism for the regulation of receptor-mediated responses.

CHROMOSOMAL LOCATION

Genetic locus: ARRB1 (human) mapping to 11q13.4; Arrb1 (mouse) mapping to 7 E2.

SOURCE

β-Arrestin-1 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β-Arrestin-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-9182 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-Arrestin-1 (K-16) is recommended for detection of β-Arrestin-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β-Arrestin-1 (K-16) is also recommended for detection of β-Arrestin-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for β-Arrestin-1 siRNA (h): sc-29741, β-Arrestin-1 siRNA (m): sc-29742, β-Arrestin-1 siRNA (r): sc-63298, β-Arrestin-1 shRNA Plasmid (h): sc-29741-SH, β-Arrestin-1 shRNA Plasmid (m): sc-29742-SH, β-Arrestin-1 shRNA Plasmid (r): sc-63298-SH, β-Arrestin-1 shRNA (h) Lentiviral Particles: sc-29741-V, β-Arrestin-1 shRNA (m) Lentiviral Particles: sc-29742-V and β-Arrestin-1 shRNA (r) Lentiviral Particles: sc-63298-V.

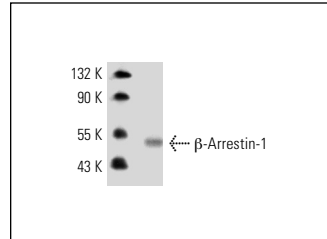
Molecular Weight of β-Arrestin-1: 55 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or SK-N-MC cell lysate: sc-2237.

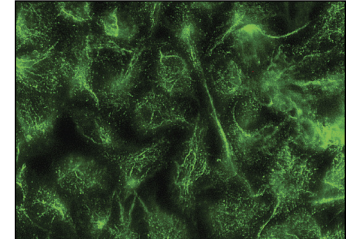
STORAGE

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

DATA



β-Arrestin-1 (K-16): sc-9182. Western blot analysis of β-Arrestin-1 expression in SK-N-MC whole cell lysate.



β-Arrestin-1 (K-16): sc-9182. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

- McLaughlin, N.J.D., et al. 2006. Platelet-activating factor-induced clathrin-mediated endocytosis requires β-Arrestin-1 recruitment and activation of the p38 MAPK signalosome at the plasma membrane for actin bundle formation. *J. Immunol.* 176: 7039-7050.
- Macia, E., et al. 2012. Arf6 negatively controls the rapid recycling of the β2AR. *J. Cell Sci.* 125: 4026-4035.
- Erickson, C.E., et al. 2013. The β-blocker nebivolol is a GRK/β-arrestin biased agonist. *PLoS ONE* 8: e71980.
- Kliwer, A. and Schulz, S. 2014. Differential regulation of somatostatin receptor dephosphorylation by β-arrestin1 and β-arrestin2. *Naunyn Schmiedebergs Arch. Pharmacol.* 387: 263-269.
- Riesco-Eizaguirre, G., et al. 2014. NIS mediates iodide uptake in the female reproductive tract and is a poor prognostic factor in ovarian cancer. *J. Clin. Endocrinol. Metab.* 99: E1199-E1208.
- Zappelli, E., et al. 2014. A rapid and efficient immunoenzymatic assay to detect receptor protein interactions: G protein-coupled receptors. *Int. J. Mol. Sci.* 15: 6252-6264.
- Daniele, S., et al. 2014. Does GRK-β arrestin machinery work as a "switch on" for GPR17-mediated activation of intracellular signaling pathways? *Cell. Signal.* 26: 1310-1325.

RESEARCH USE

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



Try **β-Arrestin-1/2 (A-1): sc-74591** or **β-Arrestin-1/2 (21-B1): sc-53781**, our highly recommended monoclonal alternatives to β-Arrestin-1 (K-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **β-Arrestin-1/2 (A-1): sc-74591**.