

β-Arrestin-2 (P-17): sc-30936

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.

REFERENCES

- Hausdorff, W.P., et al. 1990. Two kinases mediate agonist-dependent phosphorylation and desensitization of the β₂-adrenergic receptor. *Symp. Soc. Exp. Biol.* 44: 225-240.
- Cotecchia, S., et al. 1990. Multiple second messenger pathways of α-adrenergic receptor subtypes expressed in eukaryotic cells. *J. Biol. Chem.* 265: 63-69.
- Attramadal, H., et al. 1992. β-Arrestin-2, a novel member of the Arrestin/β-Arrestin gene family. *J. Biol. Chem.* 267: 17882-17890.
- Dolph, P.J., et al. 1993. Arrestin function in inactivation of G protein-coupled receptor rhodopsin *in vivo*. *Science* 260: 1910-1916.
- Parruti, G., et al. 1993. Molecular analysis of human β-Arrestin-1: cloning, tissue distribution, and regulation of expression. Identification of two isoforms generated by alternative splicing. *J. Biol. Chem.* 268: 9753-9761.

CHROMOSOMAL LOCATION

Genetic locus: ARRB2 (human) mapping to 17p13; Arrb2 (mouse) mapping to 11 B3.

SOURCE

β-Arrestin-2 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β-Arrestin-2 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-30936 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

β-Arrestin-2 (P-17) is recommended for detection of β-Arrestin-2 and, to a lesser extent, 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-2 (P-17) is also recommended for detection of β-Arrestin-2 and, to a lesser extent, β-Arrestin-1 in additional species, including equine, bovine and porcine.

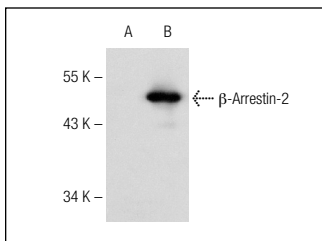
Molecular Weight of β-Arrestin-2: 55 kDa.

Positive Controls: β-Arrestin-2 (h3): 293T Lysate: sc-176496, β-Arrestin-2 (m): 293T Lysate: sc-110713 or PC-12 cell lysate: sc-2250.

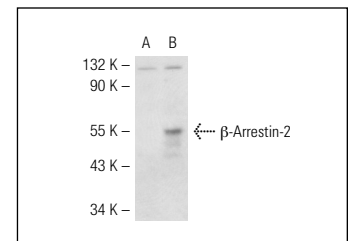
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



β-Arrestin-2 (P-17): sc-30936. Western blot analysis of β-Arrestin-2 expression in non-transfected: sc-117752 (A) and mouse β-Arrestin-2 transfected: sc-110713 (B) 293T whole cell lysates.



β-Arrestin-2 (P-17): sc-30936. Western blot analysis of β-Arrestin-2 expression in non-transfected: sc-117752 (A) and human β-Arrestin-2 transfected: sc-176496 (B) 293T whole cell lysates.

RESEARCH USE

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

MONOS
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Try **β-Arrestin-2 (B-4): sc-365445** or **β-Arrestin-2 (D-5): sc-166935**, our highly recommended monoclonal alternatives to β-Arrestin-2 (P-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **β-Arrestin-2 (B-4): sc-365445**.