

β-Arrestin-1/2 (H-290): sc-28869

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.

SOURCE

β-Arrestin-1/2 (H-290) is a rabbit polyclonal antibody raised against amino acids 7-290 mapping near the N-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.

APPLICATIONS

β-Arrestin-1/2 (H-290) is recommended for detection of β-Arrestin-1, β-Arrestin-2 and, to a lesser extent, S-Arrestin 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).

β-Arrestin-1/2 (H-290) is also recommended for detection of β-Arrestin-1, and 2, and to a lesser extent, S-Arrestin in additional species, including equine, canine, bovine and porcine.

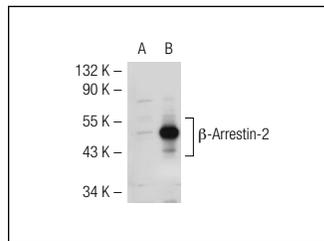
Molecular Weight of β-Arrestin-1/2: 55 kDa.

Positive Controls: β-Arrestin-2 (h): 293T lysate: sc-116903, rat skeletal muscle extract: sc-364810 or SK-N-MC cell lysate: sc-2237.

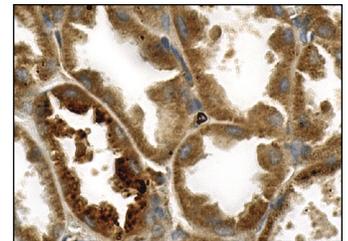
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



β-Arrestin-1/2 (H-290): sc-28869. Western blot analysis of β-Arrestin-2 expression in non-transfected: sc-117752 (A) and human β-Arrestin-2 transfected: sc-116903 (B) 293T whole cell lysates.



β-Arrestin-1/2 (H-290): sc-28869. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

- Byers, M.A., et al. 2008. Arrestin 3 mediates endocytosis of CCR7 following ligation of CCL19 but not CCL21. *J. Immunol.* 181: 4723-4732.
- Malik, R. and Marchese, A. 2010. Arrestin-2 interacts with the endosomal sorting complex required for transport machinery to modulate endosomal sorting of CXCR4. *Mol. Biol. Cell* 21: 2529-2541.
- Shi, Q., et al. 2011. Protective effects of glycyrrhizin against β₂-adrenergic receptor agonist-induced receptor internalization and cell apoptosis. *Biol. Pharm. Bull.* 34: 609-617.

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.



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-1/2 (H-290). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **β-Arrestin-1/2 (A-1): sc-74591**.