SANTA CRUZ BIOTECHNOLOGY, INC.

β-Arrestin-2 (h): 293T Lysate: sc-176570

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 (βARK-1, also designated GRK 2, or βARK-2, 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

1. Hausdorff, W.P., et al. 1990. Two kinases mediate agonist-dependent phosphorylation and desensitization of the β_2-adrenergic receptor. Symp. Soc. Exp. Biol. 44: 225-240.
2. Cotecchia, S., et al. 1990. Multiple second messenger pathways of α-adrenergic receptor subtypes expressed in eukaryotic cells. J. Biol. Chem. 265: 63-69.
3. Attramadal, H., et al. 1992. β-Arrestin-2, a novel member of the Arrestin/β-Arrestin gene family. J. Biol. Chem. 267: 17882-17890.
4. Dolph, P.J., et al. 1993. Arrestin function in inactivation of G protein-coupled receptor rhodopsin *in vivo*. Science 260: 1910-1916.
5. 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.
6. Barak, L.S., et al. 1995. The conserved seven-transmembrane sequence NP(X)2,3Y of the G protein-coupled receptor superfamily regulates multiple properties of the β_2-adrenergic receptor. Biochemistry 34:15407-15414.

CHROMOSOMAL LOCATION

Genetic locus: ARRB2 (human) mapping to 17p13.2.

PRODUCT

β-Arrestin-2 (h): 293T Lysate represents a lysate of human β-Arrestin-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

β-Arrestin-2 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive β-Arrestin-2 antibodies. Recommended use: 10-20 µl per lane.

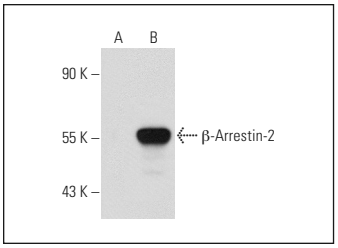
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

β-Arrestin-2 (H-9): sc-13140 is recommended as a positive control antibody for Western Blot analysis of enhanced human β-Arrestin-2 expression in β-Arrestin-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



β-Arrestin-2 (H-9): sc-13140. Western blot analysis of β-Arrestin-2 expression in non-transfected: sc-117752 (**A**) and human β-Arrestin-2 transfected: sc-176570 (**B**) 293T whole cell lysates.

RESEARCH USE

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