

# β-Arrestin-2 (D-5): sc-166935

## 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: ARRB2 (human) mapping to 17p13.2; Arrb2 (mouse) mapping to 11 B3.

## SOURCE

β-Arrestin-2 (D-5) is a mouse monoclonal antibody raised against amino acids 78-125 mapping near the N-terminus of β-Arrestin-2 of human origin.

## PRODUCT

Each vial contains 200 μg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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 (D-5) is recommended for detection of β-Arrestin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for β-Arrestin-2 siRNA (h): sc-29208, β-Arrestin-2 siRNA (m): sc-29743, β-Arrestin-2 siRNA (r): sc-63299, β-Arrestin-2 shRNA Plasmid (h): sc-29208-SH, β-Arrestin-2 shRNA Plasmid (m): sc-29743-SH, β-Arrestin-2 shRNA Plasmid (r): sc-63299-SH, β-Arrestin-2 shRNA (h) Lentiviral Particles: sc-29208-V, β-Arrestin-2 shRNA (m) Lentiviral Particles: sc-29743-V and β-Arrestin-2 shRNA (r) Lentiviral Particles: sc-63299-V.

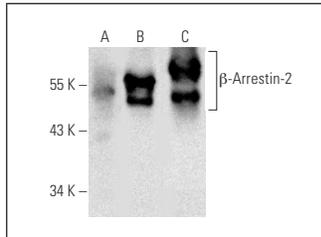
Molecular Weight of β-Arrestin-2: 55 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, PC-12 cell lysate: sc-2250 or β-Arrestin-2 (h3): 293T Lysate: sc-176496.

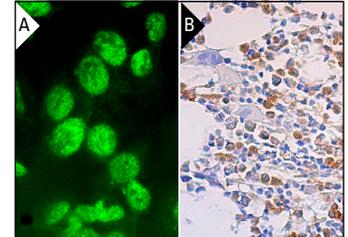
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



β-Arrestin-2 (D-5): sc-166935. Western blot analysis of β-Arrestin-2 expression in non-transfected 293T: sc-117752 (A), human β-Arrestin-2 transfected 293T: sc-176496 (B) and mouse PBL (C) whole cell lysates.



β-Arrestin-2 (D-5): sc-166935. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing cytoplasmic staining of hematopoietic cells (B).

## SELECT PRODUCT CITATIONS

1. D'Agostino, G., et al. 2020. β-Arrestin-1 and β-Arrestin-2 are required to support the activity of the CXCL12/HMGB1 heterocomplex on CXCR4. *Front. Immunol.* 11: 550824.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **β-Arrestin-2 (B-4): sc-365445** for β-Arrestin-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.