

p-β-Arrestin-1 (Ser 412)-R: sc-16639-R

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. Members of the β-Arrestin family regulate receptor binding to G proteins. One member of this family, β-Arrestin-1, whose expression is modulated by intracellular cAMP, is predominantly expressed in spleen and neuronal tissues. The function of β-Arrestin-1 is to facilitate clathrin-mediated endocytosis of the β2-adrenergic receptor and to promote agonist-induced activation of ERK, which is regulated by the phosphorylation/dephosphorylation state of β-Arrestin-1 at Ser 412. Cytoplasmic β-Arrestin-1 is mostly phosphorylated at Ser 412 and dephosphorylation at the plasma membrane is required for targeting a signaling complex to the Clathrin-coated pits. For example, dephosphorylation at Ser 412 mediates endocytosis-dependent ERK activation and following activation, ERKs phosphorylates β-Arrestin-1 to exert an inhibitory feedback control of its function.

REFERENCES

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SOURCE

p-β-Arrestin-1 (Ser 412)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 412 phosphorylated 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-16639-R P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

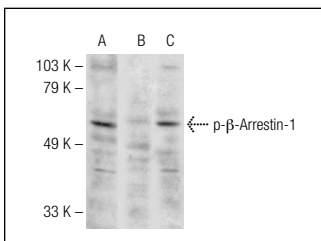
p-β-Arrestin-1 (Ser 412)-R is recommended for detection of Ser 412 phosphorylated β-Arrestin-1 by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-β-Arrestin-1 (Ser 412) is also recommended for detection of correspondingly phosphorylated β-Arrestin-1 in additional species, including equine, canine, bovine and porcine.

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 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.

DATA



p-β-Arrestin-1 (Ser 412)-R: sc-16639-R. Western blot analysis of β-Arrestin-1 phosphorylation in RAW 264.7 cells. Antibody was preincubated with either the cognate phosphopeptide (A) or unphosphorylated peptide (B).

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.