

β_3 -AR (M-50): sc-50436

BACKGROUND

β_3 -adrenergic receptors (β_3 -ARs) bind catecholamines (epinephrine, norepinephrine) and primarily regulate lipolysis and thermogenesis in adipose. β_3 -ARs are present in adipose tissues and heart, and in smooth muscle of bladder, colon, small intestine and stomach. The human corpus cavernosum exhibits basal β_3 -AR-mediated vasorelaxant tone and activity is linked to inhibition of the RhoA/Rho-kinase pathway. β_3 -AR interacts directly with the SH3 domain of Src through proline-rich motifs (PXXP) in the third intracellular loop and the carboxyl-terminus.

REFERENCES

1. Danforth, E., et al. 1997. Obesity and diabetes and the β_3 -AR. *Eur. J. Endocrinol.* 136: 362-365.
2. Gros, J., et al. 1999. Expression of human β_3 -AR induces adipocyte-like features in CHO/K1 fibroblasts. *J. Cell Sci.* 112: 3791-3797.
3. Cao, W., et al. 2000. Direct binding of activated c-Src to the β_3 -AR is required for MAP kinase activation. *J. Biol. Chem.* 275: 38131-38134.

CHROMOSOMAL LOCATION

Genetic locus: *Adrb3* (mouse) mapping to 8 A2.

SOURCE

β_3 -AR (M-50) is a rabbit polyclonal antibody raised against amino acids 351-400 mapping within a C-terminal cytoplasmic domain of β_3 -AR of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG 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_3 -AR (M-50) is recommended for detection of β_3 -AR of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for β_3 -AR siRNA (m): sc-39869, β_3 -AR shRNA Plasmid (m): sc-39869-SH and β_3 -AR shRNA (m) Lentiviral Particles: sc-39869-V.

Molecular Weight of β_3 -AR: 44 kDa.

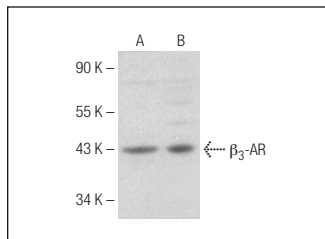
Molecular Weight of glycosylated β_3 -AR: 68 kDa.

Positive Controls: EOC 20 whole cell lysate: sc-364187 or C6 whole cell lysate: sc-364373.

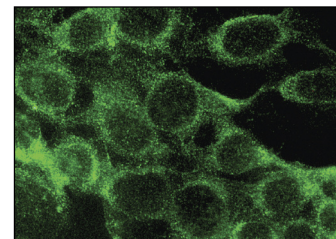
RECOMMENDED SECONDARY REAGENTS

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.

DATA



β_3 -AR (M-50): sc-50436. Western blot analysis of β_3 -AR expression in C6 (A) and EOC 20 (B) whole cell lysates.



β_3 -AR (M-50): sc-50436. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Zhang, X.H., et al. 2010. Expression and activation of β -adrenoceptors in the colorectal mucosa of rat and human. *Neurogastroenterol. Motil.* 22: e325-e334.
2. Gray, N.E., et al. 2012. Angiopoietin-like 4 (Angptl4) protein is a physiological mediator of intracellular lipolysis in murine adipocytes. *J. Biol. Chem.* 287: 8444-8456.
3. Song, J., et al. 2014. Upregulation of β_1 -adrenoceptors is involved in the formation of gastric dysmotility in the 6-hydroxydopamine rat model of Parkinson's disease. *Transl. Res.* 164: 22-31.

RESEARCH USE

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

PROTOCOLS

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



Try **β_3 -AR (C-5): sc-515763**, our highly recommended monoclonal alternative to β_3 -AR (M-50).