

β_3 -AR (B-12): sc-518080

BACKGROUND

β_3 -adrenergic receptors (β_3 -ARs) bind catecholamines (epinephrine, nor-epinephrine) 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 carboxy-terminus.

REFERENCES

1. Danforth, E., Jr., 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.
4. Dixon, T.M., et al. 2001. CCAAT/enhancer-binding protein α is required for transcription of the β_3 -AR gene during adipogenesis. *J. Biol. Chem.* 276: 722-728.
5. Steinle, J.J., et al. 2003. β_3 -ARs regulate retinal endothelial cell migration and proliferation. *J. Biol. Chem.* 278: 20681-20686.
6. Cirino, G., et al. 2003. Involvement of β_3 -AR activation via cyclic GMP- but not NO-dependent mechanisms in human corpus cavernosum function. *Proc. Natl. Acad. Sci. USA* 100: 5531-5536.
7. Hao, K., et al. 2004. β_3 -AR polymorphism and obesity-related phenotypes in hypertensive patients. *Obes. Res.* 12: 125-130.
8. LocusLink Report (LocusID: 155). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: ADRB3 (human) mapping to 8p11.23.

SOURCE

β_3 -AR (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 381-408 at the C-terminus of β_3 -AR of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

β_3 -AR (B-12) is available conjugated to agarose (sc-518080 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518080 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518080 PE), fluorescein (sc-518080 FITC), Alexa Fluor[®] 488 (sc-518080 AF488), Alexa Fluor[®] 546 (sc-518080 AF546), Alexa Fluor[®] 594 (sc-518080 AF594) or Alexa Fluor[®] 647 (sc-518080 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-518080 AF680) or Alexa Fluor[®] 790 (sc-518080 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

β_3 -AR (B-12) is recommended for detection of β_3 -AR of human origin by Western Blotting (starting dilution 1:100, 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 (h): sc-105010, β_3 -AR shRNA Plasmid (h): sc-105010-SH and β_3 -AR shRNA (h) Lentiviral Particles: sc-105010-V.

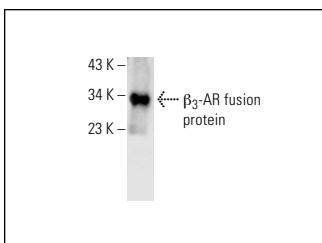
Molecular Weight of β_3 -AR: 44 kDa.

Molecular Weight of glycosylated β_3 -AR: 68 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



β_3 -AR (B-12): sc-518080. Western blot analysis of human recombinant β_3 -AR fusion protein.

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.

PROTOCOLS

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