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ADRB3 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP21726c

Specification

ADRB3 Blocking Peptide (Center) - Product Information

Primary Accession P13945

ADRB3 Blocking Peptide (Center) - Additional Information

Gene ID 155

Other Names
Beta-3 adrenergic receptor, Beta-3 adrenoreceptor, Beta-3 adrenoceptor, ADRB3, ADRB3R, B3AR

Target/Specificity
The synthetic peptide sequence is selected from aa 236-249 of HUMAN ADRB3

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ADRB3 Blocking Peptide (Center) - Protein Information

Name ADRB3 (HGNC:288)

Synonyms ADRB3R, B3AR

Function
G protein-coupled receptor for catecholamines that couples to both G(s) and G(i) proteins, leading to either activation or inhibition of adenylate cyclase and cAMP-dependent pathway, respectively (PubMed:10188996, PubMed:2570461, PubMed:8641219). The rank order of potency for physiological agonists is norepinephrine > epinephrine (PubMed:10188996, PubMed:2570461, PubMed:8641219). Involved in the regulation of thermogenesis and lipolysis in brown and white adipose tissue, after coupling to G(s) proteins and stimulation of the cAMP-PKA axis (By similarity). Also activates lipolytic process by coupling to G(i) proteins and consequent initiation of the ERK1/2 MAP kinase cascade (PubMed:10207024). Participates

in relaxation of the blood vessels and the urinary bladder (PubMed:10188996). Also mediates negative inotropic effects in cardiomyocytes through activation of an NO synthase pathway and subsequent increase in cGMP levels, possibly involving G(i/o) protein-mediated coupling (PubMed:9769330).

Cellular Location
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:O02662}

Tissue Location
Expressed mainly in adipose tissues.

ADRB3 Blocking Peptide (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ADRB3 Blocking Peptide (Center) - Images

ADRB3 Blocking Peptide (Center) - Background

Beta-adrenergic receptors mediate the catecholamine- induced activation of adenylate cyclase through the action of G proteins. Beta-3 is involved in the regulation of lipolysis and thermogenesis.

ADRB3 Blocking Peptide (Center) - References

Emorine L.J.,et al.Science 245:1118-1121(1989).
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Lelias J.M.,et al.FEBS Lett. 324:127-130(1993).
Kopatz S.A.,et al.Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
Granneman J.G.,et al.Mol. Pharmacol. 42:964-970(1992).