10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-Melanocortin 3 Receptor Antibody

Peptide-affinity purified goat antibody
Catalog # AF1666a

Specification

Goat Anti-Melanocortin 3 Receptor Antibody - Product Information

Application	**WB, E**
Primary Accession	P41968
Other Accession	NP_063941, 4159
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**36043**

Goat Anti-Melanocortin 3 Receptor Antibody - Additional Information

Gene ID 4159

Other Names
Melanocortin receptor 3, MC3-R, MC3R

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Melanocortin 3 Receptor Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Melanocortin 3 Receptor Antibody - Protein Information

Name MC3R (HGNC:6931)

Function
G protein-coupled receptor for melanocyte-stimulating hormones (alpha, beta, and gamma-MSH) and corticotropin/ACTH, which are peptide products of the POMC precursor (PubMed:37524700, PubMed:<a

href="http://www.uniprot.org/citations/8463333" target="_blank">8463333). Upon activation, couples to G(s) protein, stimulating adenylate cyclase and the cAMP-dependent signaling pathway, which contributes to the regulation of energy homeostasis (PubMed:18231126, PubMed:37524700, PubMed:8463333). Required for expression of anticipatory patterns of activity and wakefulness during periods of limited nutrient availability and for the normal regulation of circadian clock activity in the brain (By similarity). Binding of the Agouti-related protein/AGPR antagonist precludes alpha-MSH-induced signaling, blocking cAMP production (PubMed:9311920).

Cellular Location
Cell membrane; Multi-pass membrane protein.

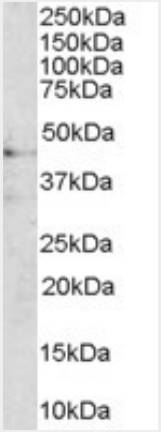
Tissue Location
Brain, placental, and gut tissues.

Goat Anti-Melanocortin 3 Receptor Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Melanocortin 3 Receptor Antibody - Images



AF1666a (1 µg/ml) staining of Human Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EB06726 (1µg/ml) staining of Human Brain lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

Goat Anti-Melanocortin 3 Receptor Antibody - Background

This gene encodes a G-protein-coupled receptor for melanocyte-stimulating hormone and adrenocorticotropic hormone that is expressed in tissues other than the adrenal cortex and melanocytes. This gene maps to the same region as the locus for benign neonatal epilepsy. Mice deficient for this gene have increased fat mass despite decreased food intake, suggesting a role for this gene product in the regulation of energy homeostasis. Mutations in this gene are associated with a susceptibility to obesity in humans.

Goat Anti-Melanocortin 3 Receptor Antibody - References

Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol? Rua□o G, et al. Pharmacogenomics, 2010 Jul. PMID 20602615.
Identification of Three Novel Genetic Variants in the Melanocortin-3 Receptor of Obese Children. Zegers D, et al. Obesity (Silver Spring), 2010 Jun 10. PMID 20539302.
Association study of 182 candidate genes in anorexia nervosa. Pinheiro AP, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jul. PMID 20468064.
Melanocortin-3 receptor gene variants: association with childhood obesity and eating behavior in Chilean families. Obreg□n AM, et al. Nutrition, 2010 Jul-Aug. PMID 20144537.
Novel binding motif of ACTH analogues at the melanocortin receptors. Yang Y, et al. Biochemistry, 2009 Oct 20. PMID 19743876.