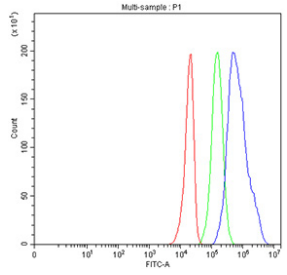
MC2R Antibody / Melanocortin receptor 2 (R32754)

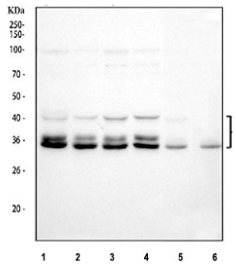
Catalog No.	Formulation	Size
R32754	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q01718
Localization	Cell membrane
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This MC2R antibody is available for research use only.



Flow cytometry testing of fixed human U-251 cells with MC2R antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= MC2R antibody.



Western blot testing of 1) human MCF7, 2) human U-251, 3) human HeLa, 4) human K562, 5) rat brain and 6) mouse brain tissue lysate with MC2R antibody at 0.5ug/ml. Predicted molecular weight: ~33-43 kDa depending on level of glycosylation.

Description

MC2R (Melanocortin receptor 2) is a G protein-coupled receptor (GPCR) belonging to the melanocortin receptor family, which is activated specifically by adrenocorticotropic hormone (ACTH). Unlike other melanocortin receptors that respond to multiple melanocortin peptides, MC2R is uniquely selective for ACTH. This receptor plays a central role in adrenal physiology by mediating ACTH-stimulated production of glucocorticoids, which are essential for stress response, immune regulation, and energy metabolism. Researchers use a MC2R antibody to investigate receptor expression, adrenal signaling pathways, and endocrine regulation.

MC2R is predominantly expressed in the adrenal cortex, where it regulates steroid biosynthesis through cyclic AMP (cAMP)-dependent pathways. Upon ACTH binding, MC2R triggers intracellular signaling cascades that promote the transcription of steroidogenic enzymes. A MC2R antibody allows detection of this receptor and provides insight into adrenal gland function, pituitary-adrenal axis regulation, and related disorders.

Mutations or dysfunction in MC2R can lead to familial glucocorticoid deficiency (FGD), a rare autosomal recessive disorder characterized by adrenal unresponsiveness to ACTH. Studying these mutations with a MC2R antibody supports efforts to understand disease mechanisms and potential therapeutic approaches. Furthermore, MC2R is of interest in pharmacological research, where modulation of its activity may provide avenues for treating adrenal insufficiency or stress-related disorders.

NSJ Bioreagents provides a high-quality MC2R antibody validated for use in western blot, immunohistochemistry, and immunofluorescence. Selecting a MC2R antibody from NSJ Bioreagents ensures reliable results and consistent detection in studies of endocrine signaling, adrenal physiology, and receptor biology.

Application Notes

Optimal dilution of the MC2R antibody should be determined by the researcher.

Immunogen

Amino acids 268-297 (NAVIDPFIYAFRSPELRDAFKKMIFCSRYW) from the human protein were used as the immunogen for the MC2R antibody.

Storage

After reconstitution, the MC2R antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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