

DATASHEET

MC4 Receptor Rabbit Polyclonal Antibody

CAT. NO. APA07245

KEY FEATURES

Target	MC4 Receptor	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Dog, Monkey, Pig, Rabbit, Sheep	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

G protein-coupled receptor that binds melanocyte-stimulating hormones (alpha- and beta-MSH) and corticotropin/ACTH, which are peptide products of the POMC precursor and corticotropin/ACTH, which are peptide products of the POMC precursor . Functions as a central component of the leptin-melanocortin pathway, which is essential for maintaining energy homeostasis . Upon activation, couples to G(s) protein, stimulating adenylate cyclase and the cAMP-dependent signaling pathway, which promotes anorexogenic signaling in the hypothalamus and contributes to a negative energy balance . Regulates food intake: activation by agonists suppresses appetite, whereas the antagonist Agouti-related protein/AGRP precludes agonist-induced signaling, thereby stimulating appetite .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to MC4 Receptor
Specificity	Recognizes endogenous levels of MC4 Receptor protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human MC4 Receptor. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 36 kD; Observed: 37 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	Melanocortin receptor 4; MC4-R
Gene Symbol	MC4R
Entrez Gene	4160(Human); 17202(Mouse); 25635(Rat)
SwissProt	P32245(Human); P56450(Mouse); P70596(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arex.bio or your local distributor.

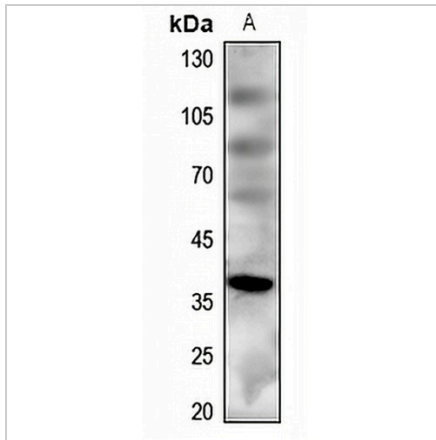
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

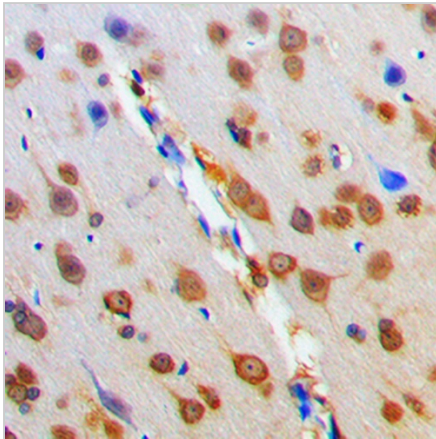
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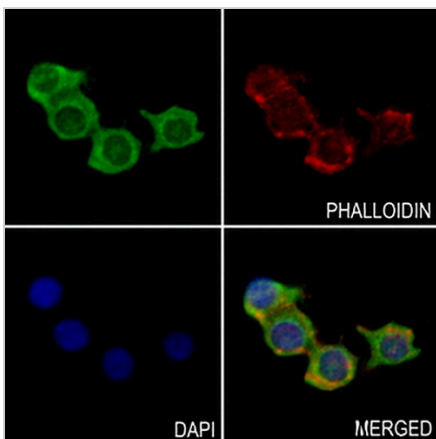
DATA



Western blot analysis of MC4 Receptor expression in mouse brain (A) whole cell lysates. (Predicted band size: 36 kD; Observed band size: 37 kD)



Immunohistochemical analysis of MC4 Receptor staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of MC4 Receptor staining in RAW264.7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.