abcam

Product datasheet

Anti-MC4-R antibody ab75506

★★★★☆ 2 Abreviews   1 References   3 Images

Overview

Product name	Anti-MC4-R antibody
Description	Rabbit polyclonal to MC4-R
Host species	Rabbit
Specificity	This antibody detects endogenous levels of total MC4 Receptor protein.
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB, ELISA
Species reactivity	**Reacts with:** Human
	Predicted to work with: Mouse, Rat ⚠
Immunogen	A synthesized peptide derived from an internal region of human MC4 Receptor
Positive control	Extracts from MCF-7 cells This antibody gave a positive result when used in the following formaldehyde fixed cell lines: U-87 MG.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS (without Mg^{2+} and Ca^{2+}), 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab75506** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
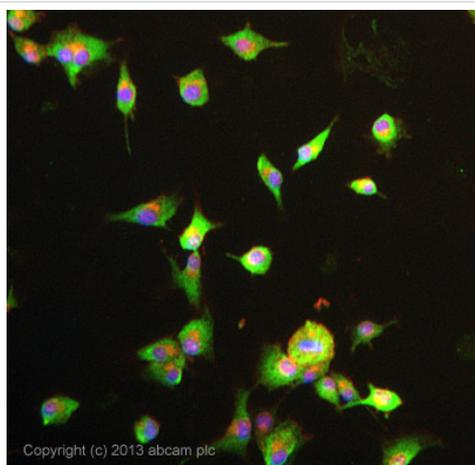
Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.

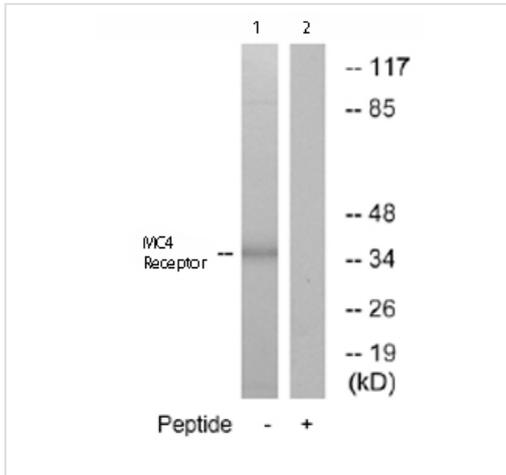| Application	Abreviews	Notes
IHC-P	★★★★☆	1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/500 - 1/1000. Predicted molecular weight: 37 kDa.
ELISA		1/40000.

Target

Function	Receptor specific to the heptapeptide core common to adrenocorticotropic hormone and alpha-, beta-, and gamma-MSH. This receptor is mediated by G proteins that stimulate adenylate cyclase.
Tissue specificity	Brain, placental, and gut tissues.
Involvement in disease	Defects in MC4R are a cause of obesity (OBESITY) [MIM:601665]. It is a condition characterized by an increase of body weight beyond the limitation of skeletal and physical requirements, as the result of excessive accumulation of body fat.
Sequence similarities	Belongs to the G-protein coupled receptor 1 family.
Cellular localization	Cell membrane.

Images

Immunocytochemistry/ Immunofluorescence - Anti-MC4 Receptor antibody (ab75506)

ab75506 stained U-87 MG cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab75506 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

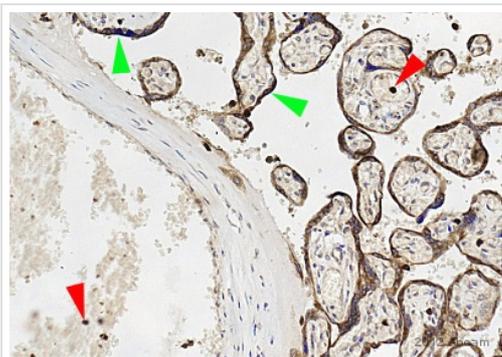**All lanes :** Anti-MC4-R antibody (ab75506) at 1/500 dilution

Lane 1 : Extracts from MCF-7 cells

Lane 2 : Extracts from MCF-7 cells plus 5µg immunizing peptide

Lysates/proteins at 5 µg per lane.

Predicted band size: 37 kDa

Observed band size: 37 kDa

Western blot - Anti-MC4 Receptor antibody
(ab75506)

IHC-P image of MC4 Receptor staining on human placenta sections using ab75506 (1:1000). The sections were de-paraffinized and subjected to heat mediated antigen retrieval using Citric acid pH6. The sections were blocked using 1% BSA for 10 mins at 21°C. Primary antibody was incubated at 21°C for 2 hours.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MC4 Receptor antibody
(ab75506)

This image is courtesy of an abreview submitted by Carl Hobbs, King's College London, United Kingdom

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