ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Melanin-Concentrating Hormone Receptor 2 (MCHR2) Antibodies

Cat. # MCHR21-S	Rabbit Anti-Human MCHR2 Antiserum	**SIZE:** 100 ul
Cat. # MCHR21-A	Rabbit Anti Human MCHR2 IgG (aff pure)	**SIZE:** 100 ug
Cat. # MCHR21-P	Human MCHR2 control/blocking peptide	**SIZE**: 100 ug

The cyclic neuropeptide, Melanin-Concentrating Hormone (MCH), plays an important role in food intake and energy balance. MCH stimulates feeding, it is up regulated in obese mice and in fasting. Animals lacking MCH eat less and are lean. Most recently, a receptor for MCH (**MCHR**) has been cloned and characterized. Human MCH receptor is 402-aa membrane protein. It is also described as an orphan G-protein coupled receptor **SLC-1 or GPR24**, somatostatin receptor-like protein. It has 7 transmembrane domains, a Dry motif at the boundary of TM3 and the 2nd intracellular loop, a consensus site for N-linked glycosylation at the N-terminus. MCHR is expressed in ventromedial and dorsomedial nuclei of the hypothalamus.

Recently, a novel second human MCH receptor (**MCH2R**) has been cloned and characterized. MCH2R gene encodes a 340 aa protein with 38% identity with MCH1R. It has the basic characteristics of GPCR and belongs to class 1 (rhodopsin-like) GPCR superfamily. MCH2R transfected cells responds to MCH with an increase in intracellular Ca+2 levels, and increased cellular extrusion of protons. MCH2R is mainly expressed in the brain.

Source of Antigen and Antibodies

Antigen	19-aa peptide from (Gene Accession #JC7695) **human MCHR2 (1)**; **Designation (#MHCR21-P, control/blocking peptide**) conjugated to KLH
Epitope Location	~C-terminus Cytoplasmic domain
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (**#MHCR21**-S) and IgG, purified over antigen-agarose (Cat # **MHCR21**-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage
Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique).

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of affinity purified antibody at 2-20 ug/ml.

Specificity & Cross-reactivity

Human MCHR21-P peptide sequence is 89% conserved in chimp, 84% in monkey MCHR2. Mouse and rat sequence are not yet available. No significant sequence homology of MCHR21-P is seen with other MCHR1 or other GPCR. Antibody crossreactivity in various species is not established. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at: www.4adi.com\data\abblock.html).

General References: 1. Chambers J et al (1999) nature 400, 261-265; Saito Y et al (1999) Nature 400, 265-269; Kolakowski LF et al (1996) FEBS Lett. 398, 253-259; Lakaye B et al (1998) BBA 1401, 216-220; (2). Hills J et al (2001) JBC 276, 20125-20129

*This product is for *in vitro* research use only.

MCHR21-S-A-P 50419A

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