ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Life Technologies™ Your Molecular & Cell Technology Partner

Melanocortin Receptor 5 (MC5-R) Antibodies

Cat. # MCR51-S	Rabbit Anti- Mouse MC5-R Antiserum	**SIZE:** 100 ul
Cat. # MCR51-A	Rabbit Anti- Mouse MC5-R Ig G#1 (aff pure)	**SIZE:** 100 ug
Cat. # MCR51-P	Mouse MC5-R Control peptide	**SIZE**: 100 ug

Melanocortins are regulatory peptides formed by post-translational processing of pro-opiomelanocortin. Melanocortin peptides have been suggested to perform a variety of physiological roles ranging from control of behavior, memory, neurotrophic properties, antipyretic and modulation of immune system, etc. Their binding sites have been found distributed in tissues ranging from lachrymal and submandibular glands, pancreas, adipose tissue, bladder, duodenum, spleen, brain, gonadal tissues and malignant melanoma tumors. Five melanocortin receptors (MC-R) have been characterized to date. These include melanocyte-specific receptor (MSH or MC1-R), corticoaderenal-specific ACTH receptor (MC2-R), melacortin-3 (MC3-R), melanocortin-4 (MC4-R) and melanocortin-5 receptor (MC5-R). MC3-R and MC4-R are distributed in brain whereas MC5-R has a broad distribution.

MC5-R is a 325 amino acid transmembrane protein expressed in the adrenals, stomach, lung and spleen and very low levels in the brain. It is also expressed in the three layers of adrenal cortex, predominantly in the aldosterone-producing zona glomerulosa cells.

Source of Antigen and Antibodies

Antigen	15aa peptide of Human MC5-R; (Gene Accession #P41149) **Designated (MCR51-P or control peptide).** conjugated to KLH; epitope location ~ N-terminus, Extracellular domain
Ab Host/type	Rabbit, polyclonal; Unpurified antiserum (cat #MCR51-S) Aff pure IgG (**cat #MCR51-A**)
2-ab	**Goat Anti-rabbit IgG-HRP** cat # 20320 (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 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

The 15 AA Mouse MCR51 immunogenic peptide sequence is 93% conserved in rat and human , 73% in pig, ovine and bovine, and 60% in chicken MC5-R. No significant sequence homology of MCR51-P is seen with other receptors. 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 see detailed protocol at the web site).

General References:

Labbeo O et al (1994) Biochem. 33, 4543; Gantz I et al 91994) BBRC 200, 1214; Fathi Z et al (1995) Neurochem. Res. 20, 107; Chhajlani V et al (1993) BBRC 195, 866; Griffon N et al (1994) BBRC 200, 1007

Citations of for ADI Antibodies (see updated list at the web site)

Lindqvist N 2003 Eur. J. Pharmacol. 482, 85-94
IHC rat retina, also in situ hybri

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

MCR51-S-A-P 71214A

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