

**Product Specification Sheet**

**Melanocortin Receptor 3 (MC3-R) Antibodies**

<b>Cat. # MCR31-S</b>	Rabbit Anti-Human MC3-R Antiserum # 1	<b>SIZE:</b> 100 ul
<b>Cat. # MCR31-A</b>	Rabbit Anti- Human MC3-R IgG #1 (aff pure) # 1	<b>SIZE:</b> 100 ug
<b>Cat. # MCR31-P</b>	Human MC3-R Control peptide # 1	<b>SIZE:</b> 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. Melanocortin-3 receptor (MC3-R) is expressed in brain. In humans it is a 360 AA protein whereas in mice and rats its 323 AA.

**Source of Antigen and Antibodies**

<b>Antigen</b>	18aa peptide of Human MC3-R; (Gene Accession #P49168) <b>Designated (MCR31-P or control peptide or blocking peptide) conjugated to KLH</b>
<b>Epitope Location</b>	~N-terminus Extracellular domain
<b>Ab Host/type</b>	Rabbit, Polyclonal unpurified antiserum (# <b>MCR31-S</b> ) and IgG, purified over antigen-agarose (Cat # <b>MCR31-A</b> )
<b>2-Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>-ve control</b>	# 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 -200C 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 18 AA human MCR31 immunogenic peptide sequence is not very conserved in mouse (61%) or other species. It is recommended to use anti-mouse MCR (#MCR32-A) that is made to the mouse sequence. Antibody 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](http://www.4adi.com/data/abblock.html)).

**General References:** Gantz I (1993) JBC 268, 8246; Desarnaud F et al (1994) Bichem J 299, 367-373; Roselli-Rehffuss L (1993) PNAS 90, 8856; (

**(2) Citations of ADI's Antibodies** (see web site for updated list)

Lindqvist N, 2003 Eur. J. Pharmacol. 482, 85-94, IHC

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

MCR31-S-A-P

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