ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Agouti Related Protein (AGRP) Antibodies

Cat # AGRP12-M Rat monoclonal Anti-Mouse AGRP IgG (aff pure) **SIZE**: 100 ug

FORM: Soln Lyophilized

Several common diseases such as type II diabetes, hypertension, cardiovascular diseases, hyperlipidemia, and some cancers are associated with obesity. An abnormal increase in body fat relative to lean tissue mass has been used as an indicator of obesity. High fat diet, certain environmental factors, and genetic linkage are the primary causes of obesity. In order to understand the genetic basis of obesity, several monogenic murine obesity models have been characterized *including obese (Ob), diabetes (db), fat (fat), agouti yellow (A^y), and tubby (tub)*. More recently, *Tub*, the human homolog of mouse *Tub*, *TULP1 & TULP2* (for Tubby Like Proteins) and Agouti related protein (AGRP) have been cloned. The obesity associated with *Ay* mice may be due to ectopic expression of a secreted protein Agouti. *Agouti* protein (132 aa in human) is normally expressed in skin but its ubiquitous expression causes obesity. Agouti is a paracrine-signaling molecule that affects pigmentation by inhibiting the melanocortin receptor 1 (MCR-1). However, recombinant Agouti protein also antagonizes the MC2R and MC4R. AGRP (132 aa in human, chromosome 16q21) is normally expressed in adrenal and hypothalamus. AGRP levels are increased several folds in *ob/ob* mice. AGRP is a strong antagonist of MC3R and MC4R. Ubiquitous expression of AGRP in transgenic mice causes obesity without altering skin pigmentation.

Source of Antigen and Antibodies

Antigen	Recombinant purified mouse AGRP protein
Ab Host/type	Rat, monoclonal (IgG2b)
Ab Format	Aff pure IgG (**cat # AGRP12-M)**
-ve	# 20005-1, Rat (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Buffer: PBS pH 7.5

Reconstitute powder in 100 ul water.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

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 1-5 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 pure antibody at 2-20 ug/ml.

Specificity & Cross-reactivity

This antibody reacts with mouse AGRP in western and ELISA. Antibody crossreactivity in various species is not known. We recommend the use of cat # AGRP13-M for human AGRP.

General References:

1. Shutter RJ et al (1997) Genes Develop. 11, 593; Ollmann MM et al (1997) Science 278, 135.

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

Related material available from ADI

Anti-Agouti, AGRP, Tubby, TUB, TULP1, TULP2, Leptin, and Melanocortin receptors 91-5)

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

Western Blot Recycling Kit (Strips blots in 5 minutes) and re-use the same blot with multiple antibodies

AGRP12-M 71129S

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