ALPHA DIAGNOSTIC INTERNATIONAL

LIFE TECH Life Technologies™ Your Molecular & Cell Technology Partner

Product Specification Sheet

Agouti Related Protein (AGRP) Antibodies

Cat # AGRP13-M	Mouse monoclonal Anti-Human AGRP IgG (aff pure)	**SIZE**: 100 ug
Cat # AGRP13-C	Recombinant purified Human AGRP protein for WB +ve control	**SIZE**: 100 ul

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 human AGRP protein
Ab Host/type	mouse, monoclonal (IgG1)
Ab Format	Aff pure IgG (**cat # AGRP13-M)**
2-ab	Cat # 40320, **goat anti-mouse IgG-HRP** (AP, biotin, FITC conjugates also available).
-ve control	# 20008-1, Mouse (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Human AGRP (Cat # AGRP13-C) protein (132 aa) was expressed as his-tagged fusion protein in baculovirus cell line Sf21 and purified (>95%). The purified protein migrates as ~14-19 kDa in SDS-PAGE (reducing). **For WB +ve control** (**Cat # AGRP13-C**), it is formulated in SDS-PAGE sample buffer (reduced). This preparation is not biologically inactive. It is not suitable for ELISA or other applications where native protein is required. It is supplied in 100 ul/vial. For WB, heat once and load 10 ul/lane and visualize with appropriate antibodies. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the NEP11-C solution prior to heating and loading on gels. Store frozen in suitable aliquots. Do not freeze, thaw, or hear repeatedly.

Recommended Usage

For Western blot use only. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. It is designed to produce good intensity band when used with appropriate ADI antibodies.

WB +control formulation is not suitable for ELISA, dot blots or other applications requiring native protein.

Affinity pure IgG

☐ 100 ug/100ul ☐ 50 ug/50 ul
☐ solution ☐ lyophilized powder
Buffer: PBS pH 7.5
Reconstitute powder in the original vol. of 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 human AGRP in western and ELISA. Antibody crossreactivity in various species is not known. We recommend the use of cat # AGRP12-M for mouse 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-Rabbit IgG-HRP Conjugate and ECL Reagents

AGRP13-M-C 71129S

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com