

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse AgRP in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse AgRP/ART Val25-Thr131 Accession # P56473
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Agouti-Related Protein (AgRP), the protein product of the Agouti-Related Transcript (ART), is a neuroprotein that regulates energy metabolism and the development of obesity by antagonizing α -melanocyte stimulating hormone (α -MSH) action on MC-3 and MC-4 receptors (1-4). AgRP is predominantly expressed in the hypothalamus and adrenal medulla (5). Mature mouse AgRP is a 111 amino acid (aa) polypeptide; its C-terminal portion contains ten conserved cysteines that form five disulfide bonds (5, 6). Within the C-terminal region, mouse AgRP shares 80% and 90% aa sequence identity with human and rat AgRP, respectively. It also shares 44% aa sequence identity with Agouti. As with Agouti, the C-terminal cysteine-rich region is sufficient for biological activity (7). AgRP, however, is 100 times more potent than Agouti in antagonizing MC-3 and MC-4 receptors (8). AgRP also induces the β -arrestin dependent endocytosis of MC-3 and MC-4 (9). Hypothalamic expression of AgRP is upregulated in obesity and diabetes (5, 10), and chronic AgRP administration increases food intake and weight gain in rats (11). Genetically-linked polymorphisms of AgRP in humans are associated with susceptibility to anorexia nervosa (12, 13). In addition, AgRP inhibits the ACTH-induced synthesis of steroid hormones via a mechanism that does not involve melanocortin receptors (14).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.