Mouse AgRP/ART Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF634

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse AgRP in direct ELISAs. In direct ELISAs, less than 25% cross-reactivity with recombinant human AgRP is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse AgRP/ART Val25-Thr131 Accession # P56473
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

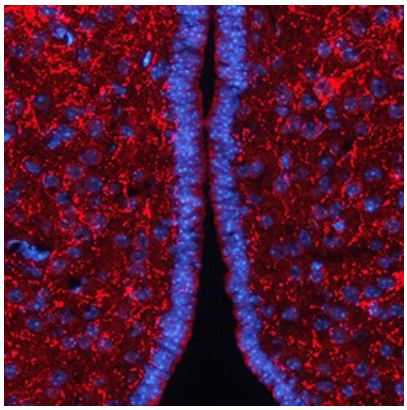
APPLICATIONS

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.*

	Recommended Concentration	Sample
Immunohistochemistry	1.7-5 µg/mL	See Below

DATA

Immunohistochemistry



AgRP/ART in Mouse Brain. AgRP/ART was detected in perfusion fixed frozen sections of mouse brain (hypothalamus) using Goat Anti-Mouse AgRP/ART Antigen Affinity-purified Polyclonal Antibody (Catalog # AF634) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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).

References:

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