

Product Data Sheet

AGRP Protein, Human (HEK293, Fc)

Cat. No.:	HY-P75528
Synonyms:	Agouti-related protein; AGRP; AGRT; ART
Species:	Human
Source:	HEK293
Accession:	O00253 (A21-T132)
Gene ID:	181
Molecular Weight:	Approximately 39 kDa

PROPERTIES	
TROI ERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.2. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION	
Background	The AGRP protein plays a crucial role in weight homeostasis and is integral to the regulation of feeding behavior through the central melanocortin system. Functioning as an alpha melanocyte-stimulating hormone antagonist, AGRP inhibits cAMP production mediated by the stimulation of melanocortin receptors within the hypothalamus and adrenal gland. While exhibiting minimal activity with MC5R, AGRP serves as an inverse agonist for MC3R and MC4R, suppressing their constitutive activity. Moreover, AGRP promotes the endocytosis of MC3R and MC4R in an arrestin-dependent manner, underscoring its intricate involvement in modulating the activity of melanocortin receptors. The interaction of AGRP with MC3R, MC4R, and MC5R further highlights its regulatory role in the melanocortin signaling pathway, positioning it as a key player in the intricate balance of weight regulation and feeding control.

Caution: Product has not been fully validated for medical applications. For research use only.

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