# **Mouse AGRP Protein (Fc Tag)**

Catalog Number: 50276-M02H



### **General Information**

### Gene Name Synonym:

Agrt; Art

### **Protein Construction:**

A DNA sequence encoding the mouse AGRP (NP\_031453.1)(Met1-Thr131) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

**QC** Testing

Purity: > 85 % as determined by SDS-PAGE

**Endotoxin:** 

 $< 1.0 \; EU \; per \; \mu g$  of the protein as determined by the LAL method

Predicted N terminal: Val 21

#### **Molecular Mass:**

The recombinant mouse AGRP /Fc is a disulfide-linked homodimer. The reduced monomer comprises 352 amino acids and has a predicted molecular mass of 39.4 KDa. The apparent molecular mass of the protein is approximately 41 KDa in SDS-PAGE under reducing conditions due to glycosylation.

# Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

# **Usage Guide**

## Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

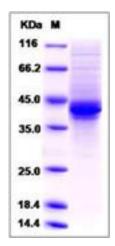
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

### SDS-PAGE:



# **Protein Description**

Agouti Related Protein (AGRP, or AGRT), is an endogenous antagonist of the melanocortin receptors MC3R and MC4R found in the hypothalamus and exhibits potent orexigenic activity. AGRP can act as a competitive antagonist to proopiomelanocortin (POMC)-derived peptides at the melanocortin-4 receptor (MC4R), and that this homeostatic mechanism is important as a means of coordinating appetite with perceived metabolic requirement. AGRP is upregulated by fasting while intracerebroventricular injections of synthetic AGRP lead to increased appetite and food intake. Thus, AGRP is a powerful orexigenic peptide that increases food intake when ubiquitously overexpressed or when administered centrally.

### References

1.IInytska O, et al. (2008) The role of the Agouti-Related Protein in energy balance regulation. Cell Mol Life Sci. 65(17): 2721-31.

2.Pritchard LE, et al. (2005) Agouti-related protein: more than a melanocortin-4 receptor antagonist? Peptides. 26(10): 1759-70.

3.Sttz AM, et al. (2005) The agouti-related protein and its role in energy homeostasis. Peptides. 26(10): 1771-81.