Mouse OMGP / OMG Protein (aa 1-245, His Tag)

Catalog Number: **50686-M08H1**

General Information

Gene Name Synonym:

OMG

Protein Construction:

A DNA sequence encoding the amino acids (Met 1-Thr 245) of mouse OMGP (Q63912) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ile 25

Molecular Mass:

The secreted recombinant mouse OMGP (aa 1-245) comprises 232 amino acids and has a calculated molecular mass of 27 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 44 kDa band in SDS-PAGE under reducing conditions.

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

Storage:

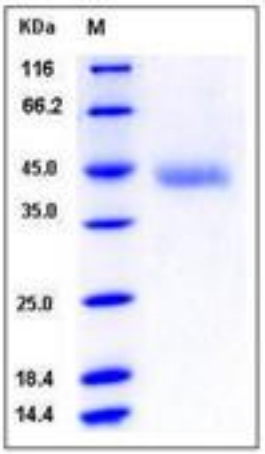
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Oligodendrocyte-myelin glycoprotein, also known as OMG and OMGP, is a cell membrane protein which contains eightLRR (leucine-rich) repeats. OMG / OMGP is a glycosylphosphatidylinositol-anchored protein expressed by neurons and oligodendrocytes in the central nervous system (CNS). OMG / OMGP is a cell adhesion molecule contributing to the interactive process required for myelination in the central nervous system. OMG / OMGP play roles in both the developing and adult central nervous system. OMG / OMGP participats in growth cone collapse and inhibition of neurite outgrowth through its interaction with NgR, the receptor for Nogo. This function requires its leucine-rich repeat domain, a highly conserved region in OMgp during mammal evolution. OMG / OMGP leucine-rich repeat domain is also implicated in the inhibition of cell proliferation. OMG / OMGP may also be involved in the formation and maintenance of myelin sheaths. Cell proliferation, neuronal sprouting and myelination are crucial processes involved in brain development and regeneration after injury.

References

1.Viskochil D., *et al.*,(1991), The gene encoding the oligodendrocyte-myelin glycoprotein is embedded within the neurofibromatosis type 1 gene. Mol. Cell. Biol. 11:906-912. 2.Mikol D.D., *et al.*, (1990), The oligodendrocyte-myelin glycoprotein belongs to a distinct family of proteins and contains the HNK-1 carbohydrate.J. Cell Biol. 110:471-479. 3.Mikol D.D., *et al.*,(1990), Structure and chromosomal localization of the gene for the oligodendrocyte-myelin glycoprotein.J. Cell Biol. 111:2673-2679.