

Human MOG Protein (aa 30-149, His Tag)

Catalog Number: 10364-H08E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

BTN6; BTNL11; MOGIG2; NRCLP7

Protein Construction:

A DNA sequence encoding the extracellular domain of human MOG (NP_996532.2) (Gly 30-Tyr 149) was expressed, fused with a polyhistidine tag at the C-terminus and an additional Met at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The secreted recombinant human MOG comprises 127 amino acids with a predicted molecular mass of 15 kDa. It migrates as an approximately 19 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:

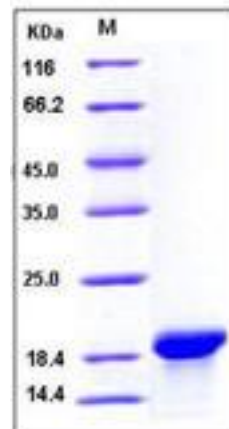
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Myelin oligodendrocyte glycoprotein (MOG) is a transmembrane protein belonging to immunoglobulin superfamily, and contains an Ig-like domain followed by two potential membrane-spanning regions. MOG is expressed only in the CNS with very low content (approximately 0.1% total proteins) in oligodendrocyte membrane. Three possible functions for MOG were suggested: (a) a cellular adhesive molecule, (b) a regulator of oligodendrocyte microtubule stability, and (c) a mediator of interactions between myelin and the immune system, in particular, the complement cascade. A direct interaction might exist between the membrane-associated regions of MOG and the myelin-specific glycolipid galactocerebroside (Gal-C), and such an interaction may have important consequences regarding the membrane topology and function of both molecules. It is considered that MOG is an autoantigen capable to produce a demyelinating multiple sclerosis-like disease in experimental animals.

References

1. Chekhonin VP, *et al.* (2003) Myelin oligodendrocyte glycoprotein: the structure, functions, role in pathogenesis of demyelinating disorders. *Biomed Khim.* 49(5): 411-23.
2. Hilton AA, *et al.* (1995) Characterization of cDNA and Genomic Clones Encoding Human Myelin Oligodendrocyte Glycoprotein. *J Neurochem.* 65(1): 309-18.
3. Johns TG, *et al.* (1999) The Structure and Function of Myelin Oligodendrocyte Glycoprotein. *J Neurochem.* 72(1): 1-9.

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