

MOG

Description: Myelin Oligodendrocyte Glycoprotein is a single, non-glycosylated polypeptide chain containing 21 amino acids and having a molecular mass of 2582 Dalton, the molecular formula: C₁₁₈H₁₇₇N₃₅O₂₉S.

Catalog #: PRPS-378

For research use only.

Synonyms: Myelin Oligodendrocyte Glycoprotein, MOG.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence:

H-Met-Glu-Val-Gly-Trp-Tyr-Arg-Ser-Pro-Phe-Ser-Arg-Val-Val-His-Leu-Tyr-Arg-Asn-Gly-Lys-OH.

Purity: Greater than 95.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

The protein was lyophilized with no additives.

Stability:

Lyophilized MOG although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution MOG should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized MOG in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Introduction:

MOG is a transmembrane protein expressed on the surface of oligodendrocyte cell and on the outermost surface of myelin sheaths. MOG comprises about 0.1% of total CNS myelin protein. The MOG gene is a member of the immunoglobulin gene superfamily and is found within the MHC. The MOG gene is found on chromosome 6p21.3-p22. Myelin Oligodendrocyte Glycoprotein is a glycoprotein thought to be significant in the process of myelinization of nerves in the central nervous system (CNS). MOG peptide (35-55) is highly encephalitogenic and can induce strong T and B cell responses. A single injection of this peptide produces a relapsing- remitting neurologic disease with extensive plaque-like demyelination. Because of the clinical, histopathologic, and immunologic similarities with multiple sclerosis (MS), the MOG induced demyelinating encephalomyelitis may serve as a model for investigating MS.

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