

Recombinant Mouse myelin oligodendrocyte glycoprotein Protein, His tagged

Cat. No. MOG-042M Lot. No. (See product label)

SPECIFICATION

Product Overview	The sequence (Accession # NP_034944) corresponding to the extracellular domain of mouse MOG along with a 6xHis tag was expressed in E. coli. The recombinant mouse MOG (M-rMOG) was purified from urea denatured bacterial lysate using immobilized metal affinity chromatography (IMAC).
Species	Mouse
Source	E.coli
ProteinLength	1-125aa
Description	The product of this gene is a membrane protein expressed on the oligodendrocyte cell surface and the outermost surface of myelin sheaths. Due to this localization, it is a primary target antigen involved in immune-mediated demyelination. This protein may be involved in completion and maintenance of the myelin sheath and in cell-cell communication. Alternatively spliced transcript variants encoding different isoforms have been identified.
Tag	6xHis
Form	Solution
Molecular Mass	14.2 kDa

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Bio-activity	Female C57BL/6NHsd and SJL/JCrHsd mice (9-10 weeks old) were immunized (s.c.) with 100 µg/animal of mouse rMOG in complete Freund's adjuvant followed by 400 ng/mouse injection of pertussis toxin on day 0 and day 2 (i.p.). Mice showed EAE symptoms such as limp tail, hind limb weakness, or hind limb paralysis after induction. Please note that no other EAE induction protocols were tested including IFA/cytokine model.
Resuspension condition	Mouse MOG must be thoroughly mixed directly with Complete Freund's Adjuvant (CFA). Do not dilute recombinant mouse MOG with buffers that have pH greater than 4.5. Protein will precipitate at pH higher than 4.5.
Endotoxin	Less than 0.1 EU per 1 µg of the protein as determined by Limulus Amebocyte Lysate (LAL) quantitative kinetic assay.
Purity	≥95% by SDS-PAGE
Applications	ELISA; in vivo studies; Western Blotting
Usage	Research use
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	1 mg/mL
Storage Buffer	25 mM sodium acetate buffer (pH=4.0)
GENE INFORMATION	
Gene Name	Mog myelin oligodendrocyte glycoprotein [<i>Mus musculus</i>]
Official Symbol	MOG

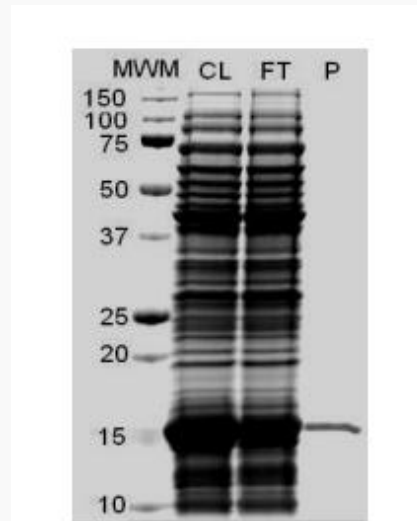
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Synonyms	MOG; myelin oligodendrocyte glycoprotein; myelin-oligodendrocyte glycoprotein; B230317G11Rik
Gene ID	17441
mRNA Refseq	NM_010814
Protein Refseq	NP_034944
UniProt ID	Q61885

**Mouse rMOG on
SDS-PAGE**



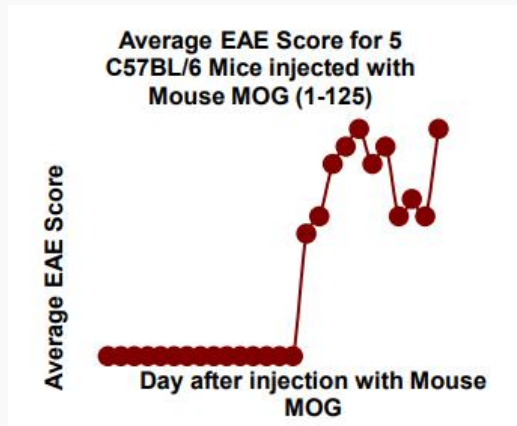
Purified M-rMOG was loaded onto 10-20% Tris-HCl gel at 3 µg/well and resolved at 200V for 60 minutes. Protein markers and purified M-rMOG (14.23 kDa) are indicated. CL=Crude Cell Lysate, FT=Flow Through, and P=Purified M-rMOG.

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An Example of EAE Data Using Mouse rMOG



Five female C57/BL6 mice (9 weeks old) were injected with 100 µg/animal mouse rMOG in CFA (total injection volume is 100 µL/site) at two flank sites subcutaneously (s.c.) along with 400 ng/animal of Pertussis Toxin (PT) on day 0 and 2. EAE scores may vary due to the animal health and housing conditions. This graph is for the reference only.

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