

## Recombinant Mouse myelin oligodendrocyte glycoprotein Protein, His tagged

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

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | The sequence (Accession # NP_034944) corresponding to the extracellular domain of mouse MOG along with a 6×His 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).                                                                                                                                                                 |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>    | 1-125aa                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | 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. |
| <b>Tag</b>              | 6×His                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Form</b>             | Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Molecular Mass</b>   | 14.2 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| <b>Bio-activity</b>           | 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. |
| <b>Resuspension condition</b> | 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.                                                                                                                                                                                                                |
| <b>Endotoxin</b>              | Less than 0.1 EU per 1 µg of the protein as determined by Limulus Amebocyte Lysate (LAL) quantitative kinetic assay.                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>                 | ≥95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Applications</b>           | ELISA; in vivo studies; Western Blotting                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Usage</b>                  | Research use                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>                | Store at -80 centigrade. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Concentration</b>          | 1 mg/mL                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Storage Buffer</b>         | 25 mM sodium acetate buffer (pH=4.0)                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>GENE INFORMATION</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Gene Name</b>              | Mog myelin oligodendrocyte glycoprotein [ Mus musculus ]                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Official Symbol</b>        | MOG                                                                                                                                                                                                                                                                                                                                                                                                                               |

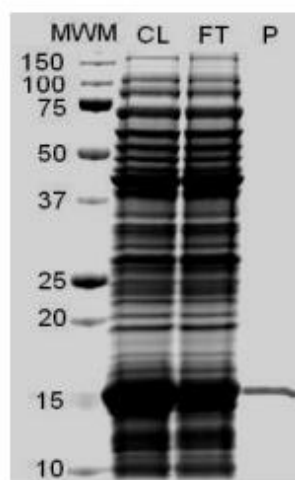
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|-----------------------|----------------------------------------------------------------------------------------------|
| <b>Synonyms</b>       | MOG; myelin oligodendrocyte glycoprotein; myelin-oligodendrocyte glycoprotein; B230317G11Rik |
| <b>Gene ID</b>        | 17441                                                                                        |
| <b>mRNA Refseq</b>    | NM_010814                                                                                    |
| <b>Protein Refseq</b> | NP_034944                                                                                    |
| <b>UniProt ID</b>     | 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

