

# Recombinant Rat MPL Protein (Met1-Ala500), HlgG1 Fc-tagged

**Cat. No.** MPL-1132R    **Lot. No.** (See product label)

## SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>     | Recombinant Rat MPL Protein (XP_001072502.1) (Met1-Ala500) was produced by HEK293 Cells expression system. This protein was expressed with the Fc region of human IgG1 at the C-terminus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>              | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>               | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ProteinLength</b>        | Met1-Ala500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>          | CD11, also known as c-MPL, is a 635 amino acid transmembrane domain, with two extracellular cytokine receptor domains and two intracellular cytokine receptor box motifs. It is expressed at a low level in a large number of cells of hematopoietic origin. C-MPL is homologous with members of the hematopoietic receptor superfamily. Presence of anti-sense oligodeoxynucleotides of c-mpl inhibited megakaryocyte colony formation. Thrombopoietin is the ligand for c-mpl. It was shown to be the major regulator of megakaryocytopoiesis and platelet formation. Defects in c-MPL are a cause of congenital amegakaryocytic thrombocytopeniawhich is a disease characterized by isolated thrombocytopenia and megakaryocytopenia with no physical anomalies. Defects in c-MPL also cause thrombocythemia type 2 and myelofibrosis with myeloid metaplasia. |
| <b>Predicted N Terminal</b> | Gln 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Form</b>                 | Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                       |                                                                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | 0.01% Tween80 are added as protectants before lyophilization.                                                                                                                                                                                                           |
| <b>Molecular Mass</b> | The recombinant rat MPL consists of 720 amino acids and predicts a molecular mass of 80.7 kDa.                                                                                                                                                                          |
| <b>Endotoxin</b>      | < 1.0 EU per µg protein as determined by the LAL method.                                                                                                                                                                                                                |
| <b>Purity</b>         | > 95 % as determined by SDS-PAGE.                                                                                                                                                                                                                                       |
| <b>Stability</b>      | Samples are stable for up to twelve months from date of receipt at -70 centigrade.                                                                                                                                                                                      |
| <b>Storage</b>        | Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.                                                                                          |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                           |
| <b>Shipping</b>       | <p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.</p> <p>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.</p> |

## GENE INFORMATION

|                        |                                                                                    |
|------------------------|------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Mpl MPL proto-oncogene, thrombopoietin receptor [ Rattus norvegicus (Norway rat) ] |
| <b>Official Symbol</b> | MPL                                                                                |
| <b>Gene ID</b>         | 366455                                                                             |

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|                |                              |
|----------------|------------------------------|
| mRNA Refseq    | <a href="#">XM_001072502</a> |
| Protein Refseq | <a href="#">XP_001072502</a> |
| UniProt ID     | <a href="#">A0A1W2Q6N1</a>   |

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