



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

## Recombinant Human Thrombopoietin (TPO)

**Catalog No.**  
IP-01-302P

**Source**  
Escherichia Coli

### **Synonyms**

Megakaryocyte colony-stimulating factor, Myeloproliferative leukemia virus oncogene ligand, C-mpl ligand, ML, Megakaryocyte growth and development factor, MGDF, TPO, MKCSF, MPLLG, MGC163194, THPO.

### **Introduction**

Thrombopoietin is a glycoprotein hormone produced mainly by the liver and the kidney that regulates the production of platelets by the bone marrow. It stimulates the production and differentiation of megakaryocytes, the bone marrow cells that fragment into large numbers of platelets.

### **Description**

Thrombopoietin Human Recombinant produced in E.Coli is a single, non-glycosylated soluble polypeptide chain containing 174 amino acids and having a molecular mass of 18608 Dalton which comprises the receptor binding domain of the Mpl-ligand protein. The TPO is purified by proprietary chromatographic techniques.

### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Formulation**

Lyophilized from a concentrated (1mg/ml) solution in water containing no additives.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### ***Solubility***

It is recommended to reconstitute the lyophilized Thrombopoietin in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

### ***Stability***

Lyophilized Thrombopoietin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TPO Human 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.**

### ***Purity***

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

### ***Amino acid sequence***

The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Pro-Ala-Pro-Pro.

### ***Biological Activity***

The ED<sub>50</sub> as determined by the dose-dependant stimulation of MO7e cells is < 1 ng/ml, corresponding to a Specific Activity of 1 x 10<sup>6</sup> IU/mg.

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