

# Recombinant Human Thrombopoietin (TPO)

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-302
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### ➤ **Description :**

Recombinant Human Thrombopoietin produced in E.Coli is a single, non-glycosylated 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. Recombinant Human Thrombopoietin 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.

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized Recombinant TPO 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 Recombinant TPO although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution Recombinant TPO 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 avoid freeze-thaw cycles.**

### ➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

➤ **Amino-Acid Sequence :**

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

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Recombinant TPO is fully biologically active when compared to standard. The ED50 as determined by the dose-dependent stimulation of MO7e cells is less than 1 ng/ml, corresponding to a Specific Activity of  $1 \times 10^6$  IU/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of TPO.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a calibrated solution of TPO as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.