

## Active Recombinant Human EPO, Fc-tagged

**Cat. No.** EPO-234H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | The extracellular domain of human EPO (aa 30-193) is fused to the N-terminus of the Fc region of a mutant human IgG1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | CHO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | 30-193 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | Erythropoietin is the principal hormone involved in the regulation of erythropoiesis by stimulating the proliferation and differentiation of erythroid progenitor cells and the maintenance of a physiological level of circulating erythrocyte mass. It is a glycoprotein produced primarily by the kidney. The biological effects of EPO are mediated by the erythropoietin receptor (Epo R). Genetic variations in EPO is associated with susceptibility to microvascular complications of diabetes type 2 (MVCD2) (including diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease and diabetic neuropathy). It is used for the treatment of anemia and misused as a performance-enhancing drug in endurance athletes. |
| <b>Form</b>             | Lyophilized from 0.2µm-filtered solution in PBS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Bio-activity</b>     | Measured by the dose-dependant stimulation of human megakaryoblastic leukemia cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purity</b>           | ≥98% (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability</b>           | Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.                                                                                                                                                                                                                                                                                  |
| <b>Storage</b>             | Short Term Storage: +4°C; Long Term Storage: -20°C. Avoid freeze/thaw cycles.                                                                                                                                                                                                                                                                                                                                        |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Gene Name</b>           | EPO erythropoietin [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Official Symbol</b>     | EPO                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Synonyms</b>            | EPO; erythropoietin; EP; epoetin; MVCD2; MGC138142;                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene ID</b>             | 2056                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>mRNA Refseq</b>         | NM_000799                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Protein Refseq</b>      | NP_000790                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>MIM</b>                 | 133170                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>UniProt ID</b>          | P01588                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Chromosome Location</b> | 7q21                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Pathway</b>             | Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; EPO Receptor Signaling, organism-specific biosystem; EPO signaling pathway, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem; HIF-2-alpha transcription factor network, organism-specific biosystem; Hematopoietic cell lineage, |

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organism-specific biosystem;

**Function**

erythropoietin receptor binding; eukaryotic cell surface binding; hormone activity;  
protein binding; protein kinase activator activity;

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