

Recombinant Murine Erythropoietin

#R00615

Size: 5 µg/100 µg/500 µg

Stability & Storage

Please use a manual defrost freezer and avoid repeated freeze-thaw cycles.

-Lyophilized protein should be stored at ≤ -20°C, stable for 12 months after receipt.

-Reconstituted protein solution can be stored at 2-8°C for 1-2 weeks.

-Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Erythropoietin (EPO) is a glycoprotein hormone that is principally known for its role in erythropoiesis, where it is responsible for stimulating proliferation and differentiation of erythroid progenitor cells.

Erythropoietin is a member of the EPO/TPO family. It is a secreted, glycosylated cytokine composed of four alpha helical bundles. The differentiation of CFU-E (Colony Forming Unit-Erythroid) cells into erythrocytes can only be accomplished in the presence of EPO. Physiological levels of EPO in adult mammals are maintained primarily by the kidneys, whereas levels in fetal or neonatal mammals are maintained by the liver.

EPO also can exert various non-hematopoietic activities, including vascularization and proliferation of smooth muscle, neural protection during hypoxia, and stimulation of certain B cells. Genetic variation in erythropoietin is associated with susceptibility to microvascular complications of diabetes type 2. These

are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy.

AA Sequence

Ala27-Arg192, Accession # P07321

Reconstitution

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Reconstitute in sterile distilled water to a concentration of 0.1-1.0 mg/mL. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Product Specification

Species	Murine
Source	CHO Cells
Molecular Weight	Recombinant Murine EPO Protein, a monomer, containing 166 amino acid residues, has a predicted molecular mass of approximately 18.6 kDa. As a result of glycosylation, the recombinant protein migrates with an apparent molecular mass of 33-36 kDa in SDS-PAGE under reducing conditions.
Purity	> 95% by SDS-PAGE gel and HPLC analyses.
Biological Activity	Determined by a cell proliferation assay using TF-1 cells. The expected ED ₅₀ for

	this effect is 2-10 ng/ml.
Formulation	Lyophilized from a 0.22 µm filtered solution of in PBS. See CoA for details.
Endotoxin	Less than 0.1 EU/µg of rMuEPO as determined by LAL test.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
