

Product Information

Erythropoietin (EPO) human recombinant, expressed in HEK 293 cells suitable for cell culture

Catalog Number **H5166**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonyms: EPO, epoetin, hematopoietin, hemopoietin

Product Description

This EPO product is expressed as a glycosylated 36 kDa monomer in human 293 cells. Production in human 293 cells offers authentic glycosylation. Glycosylation contributes to stability in cell growth media and other applications.

Erythropoietin (EPO) has been cloned from various species including human, murine, canine, and others. The mature proteins from the various species are highly conserved and exhibit greater than 80% amino acid sequence identity. EPO contains three N-linked glycosylation sites. The glycosylation of EPO is required for the *in vivo* biological activities.

EPO, produced primarily by the kidney, is the primary regulatory factor of erythropoiesis.¹ It promotes the proliferation, differentiation, and survival of the erythroid progenitors. EPO stimulates erythropoiesis by inducing growth and differentiation of burst forming units and colony forming units into mature red blood cells.² EPO produced by kidney cells is increased in response to hypoxia or anemia. The biological effects of EPO are mediated by the EPO receptor, which binds EPO with high affinity and is a potent EPO antagonist.³

This product is lyophilized from a solution of PBS. It is carrier-free and animal component-free.

ED₅₀: $\leq 5.0\text{ ng/ml}$

The specific activity is determined by the dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).

Purity: $\geq 95.0\%$ (SDS-PAGE)

Endotoxin level: $\leq 1.00\text{ EU}/\mu\text{g}$

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Briefly centrifuge the vial before opening. Reconstitute in water to a concentration of 0.1 mg/mL. Do not vortex. This solution can be stored at $2-8\text{ }^{\circ}\text{C}$ for up to 1 week. For extended storage, it is recommended to store in working aliquots at $-20\text{ }^{\circ}\text{C}$.

Storage/Stability

Store the lyophilized product at $-20\text{ }^{\circ}\text{C}$. The product is stable for at least 2 years as supplied.

References

1. Lacombe, C., and Maeux, O., *Haematologica*, **83**, 724-732 (1998).
2. Egrie, J. et al., *Human Cytokines*, Aggarwal, B. et al., (eds.), Blackwell Scientific Publications (Boston, MA: 1992) 383.
3. Carroll, M. et al., *Proc. Natl. Acad. Sci. USA*, **92**, 2869-2873 (1995).

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