



Recombinant Human EPO

20200514BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no:	100-062
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Scientific Background

Gene-ID (NCBI):	2056
Synonyms:	Erythropoietin, Epoetin

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. 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. Recombinant human EPO contains 166 amino acid residues and has a calculated molecular weight of approximately 18.4 kDa. As a result of glycosylation, Recombinant Human EPO migrates with an apparent molecular mass of 37.0 kDa by SDS-PAGE gel, under reducing and non-reducing conditions.

Sequence

```
APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT  
VPDTKVNFYA WKRMEVGQQA VEVWQGLALL SEAVLRGQAL  
LVNSSQPWEP LQLHVDRKAVS GLRSLTLLR ALGAQKEAIS  
PPDAASAAPL RTITADTFRK LFRVYSNFLR GKLKLYTGEA CRTGDR
```

Database References

Protein RefSeq:	NP_000790.2
Uniprot ID:	P01588
mRNA RefSeq:	NM_000799.2

Product Specifications

Expressed in	CHO cells
Purity	> 90% by SDS-PAGE & HPLC analysis
Endotoxin	< 0.1 ng /µg of protein (<1EU/µg).
Stabilizer	None
Formulation	Lyophilized from 10mM Sodium Phosphate, pH 7.5
Length (aa):	166
MW:	37.0 kDa (reducing/non-reducing conditions)

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by a cell proliferation assay using TF-1 cells. The expected ED₅₀ for this effect is 0.8-1.0 ng/ml.