For Research Use Only

Recombinant Mouse Erythropoietin/EPO protein (His Tag)

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Catalog Number: Eg0265

Basic Information

Species: Mouse

Purity: >90 %, SDS-PAGE

Tag: His Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/ μ g protein, LAL method

Source:
HEK293-derived Mouse Erythropoietin protein Ala27-Arg192 (Accession# P07321) with a His tag at the C-terminus.

GeneID:
13856

Accession:
P07321

Predicted Molecular Mass:
22.7 kDa

SDS-PAGE:
32-45 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Erythropoietin (EPO) is a glycoprotein hormone that regulates the production of red blood cells and biosynthesis of hemoglobin. The predominant expression of this gene shifts from the liver during fetal development to kidney in adults, and and the secreted protein will travel through the blood stream to reach to the bone marrow to stimulate hematopoietic stem cell differentiation to RBC. EPO binds to the cognate EPO receptor (EPOR) on erythroid progenitor cells, thus preventing apoptosis and stimulating their differentiation and maturation into erythrocyte. However, EPO protein and its receptors have also been shown to be cytoprotective in extra-hematopoietic tissues including the retina tissue. A complete lack of erythropoietin causes embryonic lethal anemia in mice. The conditional inactivation of erythropoietin in adult mice results in a chronic, normocytic and normochromic anemia.

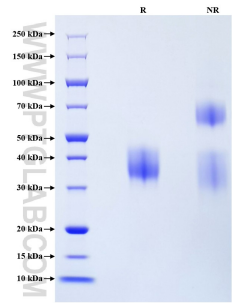
References

1. Chateauvieux S. et al.(2011) Biochem Pharmacol. 15;82(10):1291-303.
2. Caprara C. et al.(2014) Mol Vis. 20:307-24.
3. Brines M. et al. (2004) Proc Natl Acad Sci U S A. 101(41):14907-12.
4. Dis Model Mech. et al. (2010) Dis Model Mech. 3(11-12):763-72.

Synonyms

EPO, erythropoietin

Selected Validation Data



Purity of Recombinant Mouse Erythropoietin was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.