Mouse EPO Receptor / EPOR Protein (Fc Tag)

Catalog Number: **50031-M02B**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

EPOR

Protein Construction:

A DNA sequence encoding the mouse EPOR (NP_034279.3) (Met1-Pro249) was expressed, fused with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: Baculovirus-Insect cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its ability to inhibit EPO-dependent proliferation of TF-1 human erythroleukemic cells. The ED_{50} for this effect is typically 0.05-0.2 μg/mL in the presence of 16 ng/mL Recombinant mouse EPO. 2. Measured by its binding ability in a functional ELISA. 3. Immobilized mouse EPO-His (Cat:51099-M08H) at 10μg/mL (100 μL/well) can bind mouse EPOR-Fc. The EC_{50} of mouse EPOR-Fc is 0.06-0.13μg/mL.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ala 25

Molecular Mass:

The recombinant mouse EPOR/Fc is a disulfide-linked homodimer. The reduced monomer comprises 463 amino acids and has a predicted molecular mass of 51.4 kDa. The apparent molecular mass of the protein is approximately 58.6 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile 100 mM Glycine, 10 mM NaCl, pH 7.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

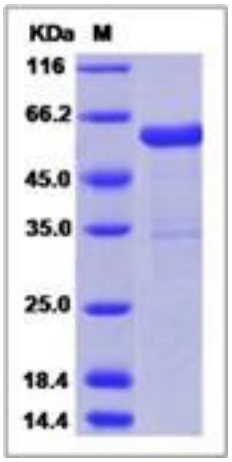
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Erythropoietin (EPO) is the major glycoprotein hormone regulator of mammalian erythropoiesis, and is produced by kidney and liver in an oxygen-dependent manner. The biological effects of EPO are mediated by the specific erythropoietin receptor (EPOR/EPO Receptor) on bone marrow erythroblasts, which transmits signals important for both proliferation and differentiation along the erythroid lineage. EPOR protein is a type â… single-transmembrane cytokine receptor, and belongs to the homodimerizing subclass which functions as ligand-induced or ligand-stabilized homodimers. EPOR signaling prevents neuronal death and ischemic injury. Recent studies have shown that EPO and EPOR protein may be involved in carcinogenesis, angiogenesis, and invasion.

References

1.Divoky V, *et al.* (2002) Mouse surviving solely on human erythropoietin receptor (EpoR): model of human EpoR-linked disease. Blood 99(10): 3873-4. 2.Carruthers SG. (2009) A truncated erythropoietin receptor EPOR-T is associated with hypertension susceptibility. Clin Pharmacol Ther. 86(2): 134-6. 3.Baltaziak M, *et al.* (2009) Relationships of P53 and Bak with EPO and EPOR in human colorectal cancer. Anticancer Res. 29(10):4151-6.