

**Recombinant Human Erythropoietin/EPO,
Tag Free**

货号(Catalog Number): CY101FXXXX(L)

别名(synonym):ECYT5; EP; EPO; epoetin; Erythropoietin;
MGC138142; MVCD2**来源(Source):** Human embryonic kidney cell,
HEK293-derived human Erythropoietin/EPO protein**蛋白结构 (Structure):**

该蛋白不含标签

基因 ID: CAA26094**氨基酸序列:**

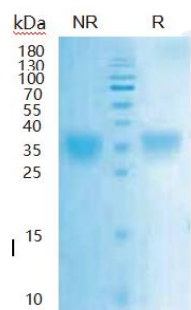
Ala28-Arg193

分子量大小(MW):

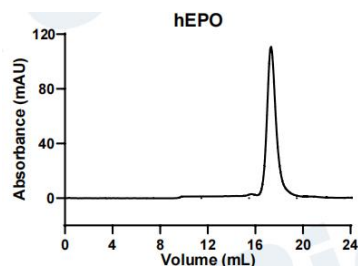
21 kDa (Monomer)

纯度 (Purity):

> 95%, determined by SDS-PAGE

SDS-PAGE

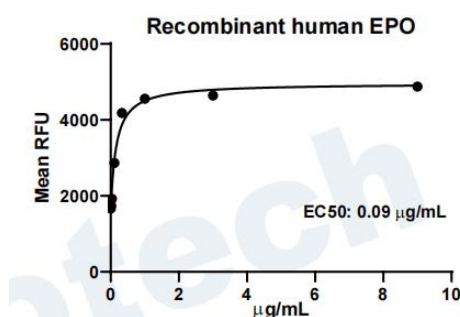
4 ug/lane protein was resolved with SDS-PAGE under

non-reducing (NR) and reducing (R) conditions and
visualized by Coomassie Blue staining.**Gel-filtration**

版本号: IN-PA-151-00

Size-exclusion chromatography of recombinant
human Erythropoietin/EPO protein (280 nm
absorbance)**内毒素含量 (Endotoxin):**

<0.010 EU per 1 ug of the protein by the LAL method

制剂(Formulation):Solution protein. Dissolved in sterile PBS buffer. This
solution can be diluted into other aqueous buffers.
Centrifuge the vial prior to opening.**活性检测 (Biological Activity):**Recombinant human Erythropoietin/EPO stimulates
cell proliferation of the TF-1 human
erythroleukemic cells.**储存与运输(Storage):**

Avoid repeated freeze-thaw cycles.

It is recommended that the protein be aliquoted for
optimal storage.36 months from date of receipt, -20 to -70 °C as
supplied.**产品背景介绍 (Production)**Erythropoietin (EPO) is a 34 kDa glycoprotein
hormone in the type I cytokine family and is related to
thrombopoietin. Its three N-glycosylation sites, four
alpha helices, and N- to C-terminal disulfide bond are
conserved across species. Glycosylation of the EPO
protein is required for biological activities in vivo.
The mature human EPO protein shares 75% - 84%
amino acid sequence identity with bovine, canine,

equine, feline, mouse, ovine, porcine, and rat EPO. EPO is primarily produced in the kidney by a population of fibroblast-like cortical interstitial cells adjacent to the proximal tubules. It is also produced in much lower, but functionally significant amounts by fetal hepatocytes and in adult liver and brain. EPO promotes erythrocyte formation by preventing the apoptosis of early erythroid precursors which express the erythropoietin receptor (EPOR). EPO R has also been described in brain, retina, heart, skeletal muscle, kidney, endothelial cells, and a variety of tumor cells. Ligand induced dimerization of EPO R triggers JAK2-mediated signaling pathways followed by receptor/ligand endocytosis and degradation. Rapid regulation of circulating EPO allows tight control of erythrocyte production and hemoglobin concentrations. Anemia or other causes of low tissue oxygen tension induce erythropoietin production by stabilizing the hypoxia-inducible transcription factors HIF-1 alpha and HIF-2 alpha. EPO additionally plays a tissue-protective role in ischemia by blocking apoptosis and inducing angiogenesis.

