



Rabbit Anti-EPOR antibody

SL1424R

Product Name:	EPOR
Chinese Name:	红细胞生成素受体抗体
Alias:	erythropoietin receptor; EPO R; EPO Receptor; Erythropoietin receptor precursor; EPOR_HUMAN; MGC138358.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	56kDa
Cellular localization:	The cell membraneExtracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human EPOR:301-450/508<Cytoplasmic>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The erythropoietin receptor (EPOR) is a member of the cytokine receptor family. There are several isoforms including: EPOR-F (full length), EPOR-S (soluble form), and EPOR-T (truncated form). Upon erythropoietin (EPO) binding, the EPOR activates Jak2 tyrosine kinase which activates different intracellular pathways including: Ras/MAP kinase, phosphatidylinositol 3-kinase and STAT transcription factors. The stimulated

EPOR appears to have a role in erythroid cell survival. Defects in the EPOR may produce erythroleukemia and familial erythrocytosis. A functional EPOR is found in the cardiovascular system, including endothelial cells and cardiomyocytes, and data suggest that the EPO/EPO receptor system plays an important role in cardiac function. In animal studies, treatment with EPO during ischemia/reperfusion in the heart has been shown to limit the infarct size and the extent of apoptosis.

Function:

Receptor for erythropoietin. Mediates erythropoietin-induced erythroblast proliferation and differentiation. Upon EPO stimulation, EPOR dimerizes triggering the JAK2/STAT5 signaling cascade. In some cell types, can also activate STAT1 and STAT3. May also activate the LYN tyrosine kinase. Isoform EPOR-T acts as a dominant-negative receptor of EPOR-mediated signaling.

Subunit:

Forms homodimers on EPO stimulation. The tyrosine-phosphorylated form interacts with several SH2 domain-containing proteins including LYN, the adapter protein APS, PTPN6, PTPN11, JAK2, PI3 kinases, STAT5A/B, SOCS3, CRKL. Interacts with INPP5D/SHIP1. The N-terminal SH2 domain of PTPN6 binds Tyr-454 and inhibits signaling through dephosphorylation of JAK2. APS binding also inhibits the JAK-STAT signaling. Binding to PTPN11, preferentially through the N-terminal SH2 domain, promotes mitogenesis and phosphorylation of PTPN11. Binding of JAK2 (through its N-terminal) promotes cell-surface expression. Interaction with the ubiquitin ligase NOSIP mediates EPO-induced cell proliferation. Interacts with ATXN2L.

Subcellular Location:

Cell membrane; Single-pass type I membrane protein.

Isoform EPOR-S: Secreted. Note=Secreted and located to the cell surface.

Tissue Specificity:

Erythroid cells and erythroid progenitor cells. Isoform EPOR-F is the most abundant form in EPO-dependent erythroleukemia cells and in late-stage erythroid progenitors. Isoform EPOR-S and isoform EPOR-T are the predominant forms in bone marrow. Isoform EPOR-T is the most abundant form in early-stage erythroid progenitor cells.

Similarity:

Belongs to the type I cytokine receptor family. Type 1 subfamily. Contains 1 fibronectin type-III domain.

SWISS:

P19235

Gene ID:

2057

Database links:

[Entrez Gene: 2057](#)Human

[Entrez Gene: 13857](#)Mouse

[Entrez Gene: 24336](#)Rat

[Omim: 133171](#)Human

[SwissProt: P19235](#)Human

[SwissProt: P14753](#)Mouse

[SwissProt: Q07303](#)Rat

[Unigene: 631624](#)Human

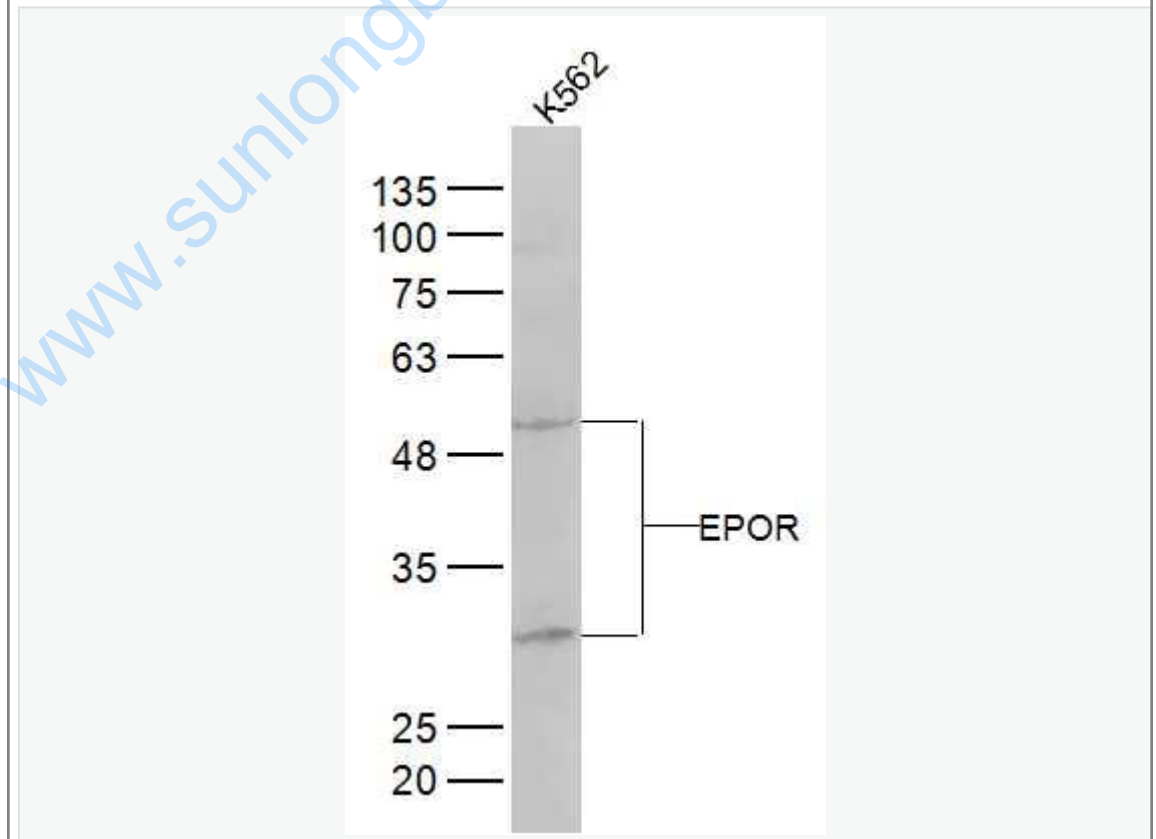
[Unigene: 2653](#)Mouse

[Unigene: 22394](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

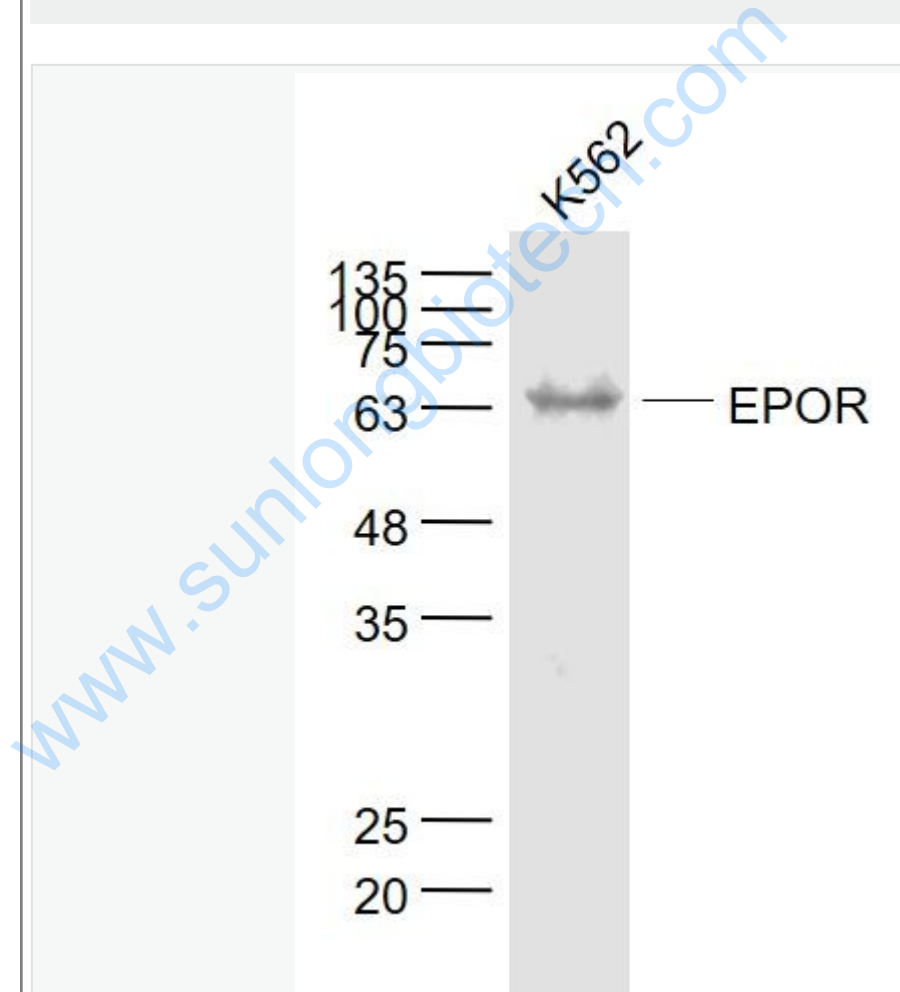
K562(Human) Cell Lysate at 30 ug

Primary: Anti-EPOR (SL1424R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 30/52 kD



Sample:

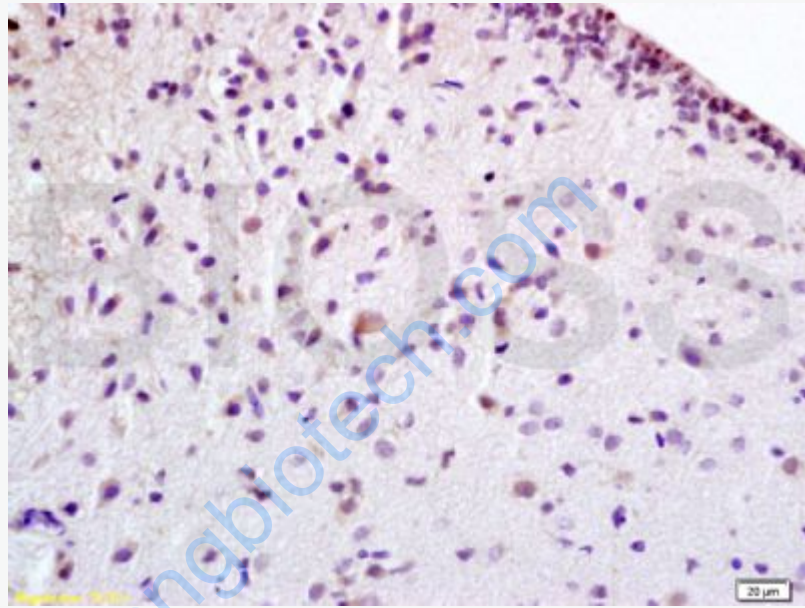
K562(Human) Cell Lysate at 30 ug

Primary: Anti- EPOR (SL1424R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

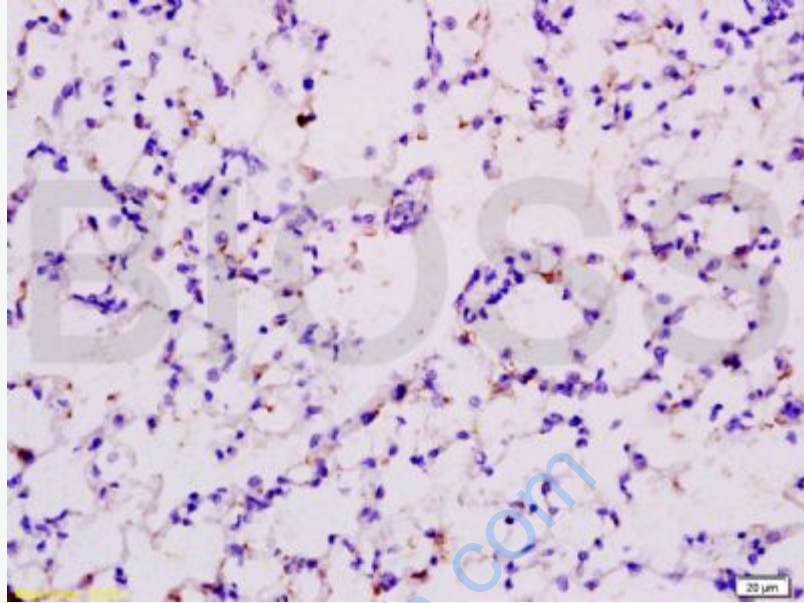
Observed band size: 64 kD



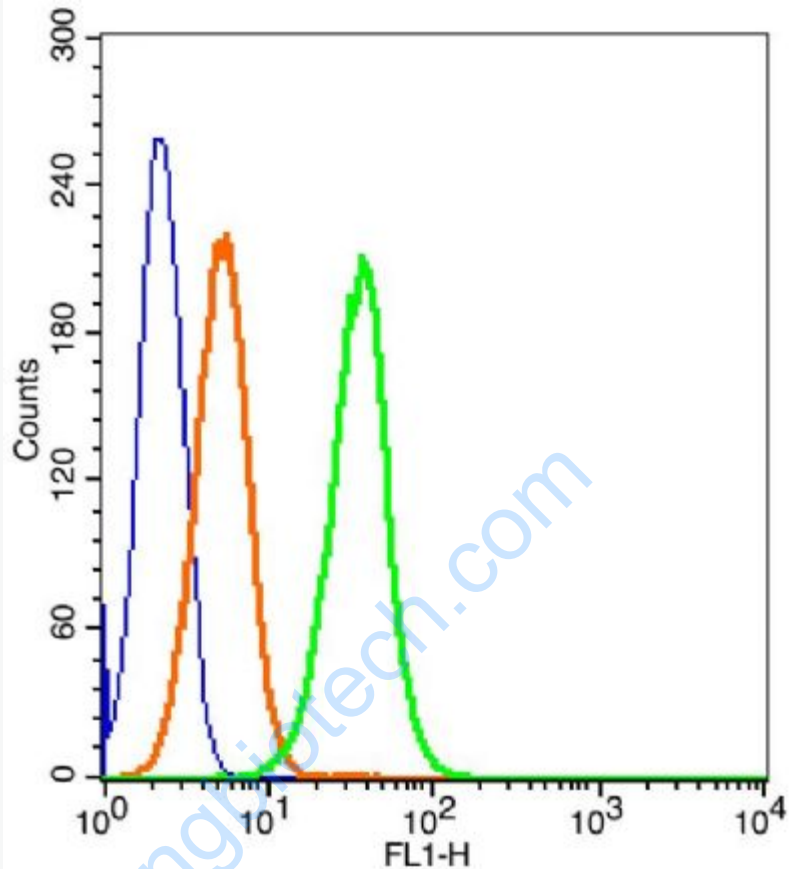
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-EPOR Polyclonal Antibody, Unconjugated(SL1424R) 1:100, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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Incubation: Anti-EPOR Polyclonal Antibody, Unconjugated(SL1424R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: Molt-4 Cells(blue).

Primary Antibody: Rabbit Anti-EPOR/FITC Conjugated antibody (SL1424R),

Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG/AF488 orange) ,used under the same conditions.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) . The cells were washed twice with 1 X PBS. The cells were incubated in 1 X PBS containing 0.5% BSA + 10% goat serum (15 min) to block non-specific protein-protein interactions followed by the incubated with antibody (SL1424R) for 30 min on ice. Acquisition of 20,000

	events was performed.
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