SunLong Biotech Co.,LTD
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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.
Research Area	Tumour Cardiovascular immunology Signal transduction Stem cells Apoptosis The cell membrane 受体 G protein signal
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Rat(predicted:Mouse,Dog,Cow,Horse)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	56kDa
Cellular localization	The cell membrane Extracellular matrix Secretory protein
Form	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
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
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 from 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

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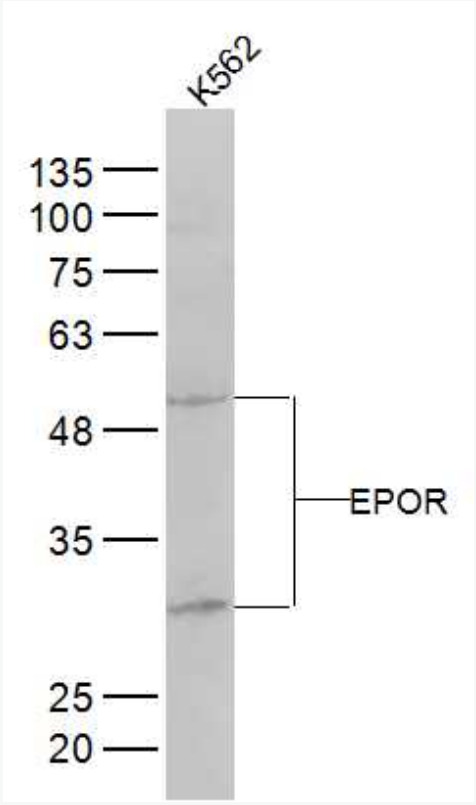
Product Picture



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

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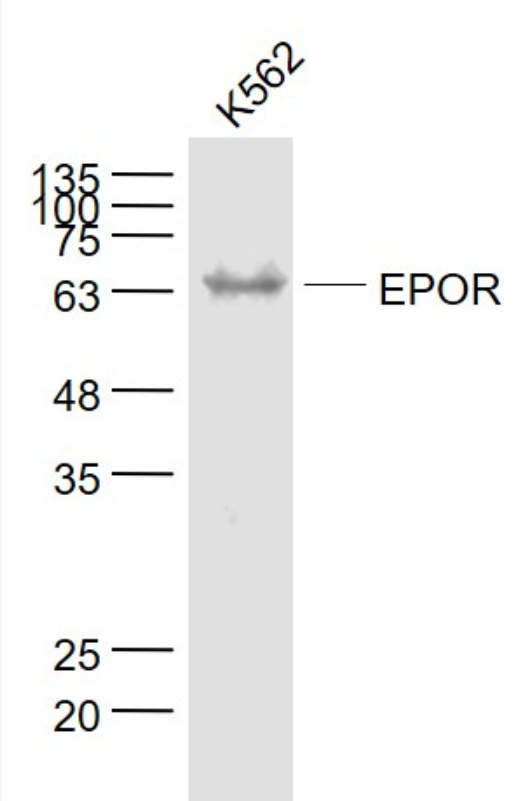

Sample:

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

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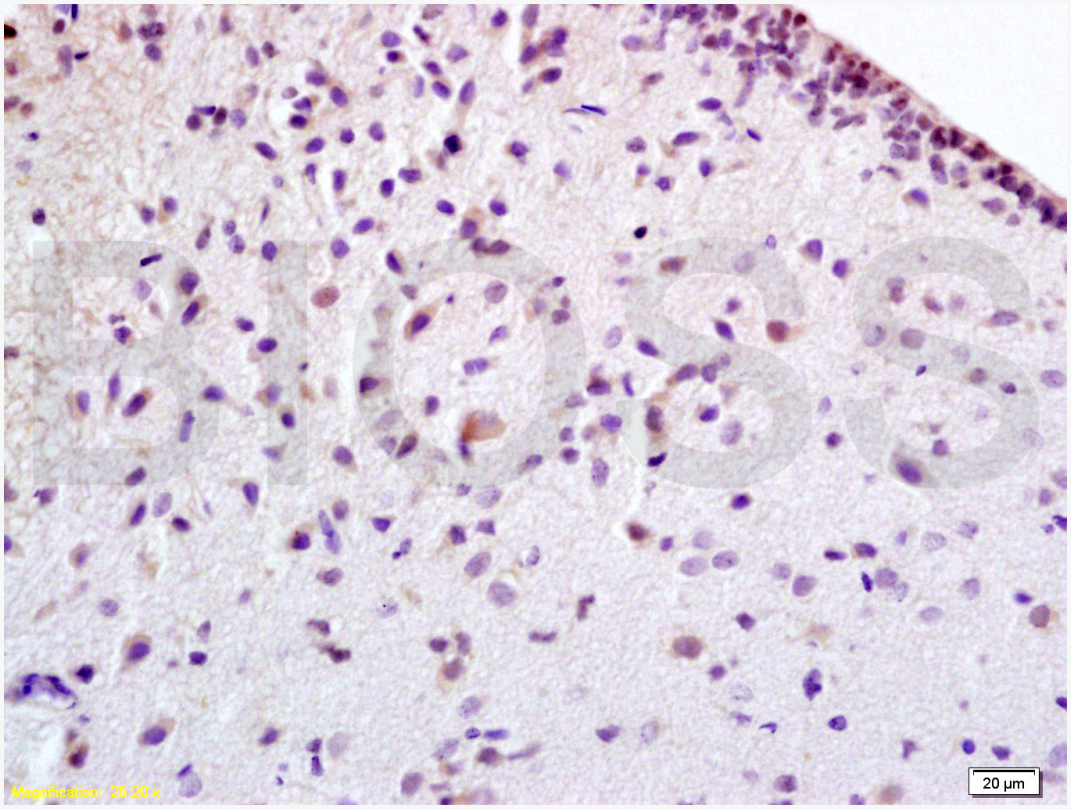
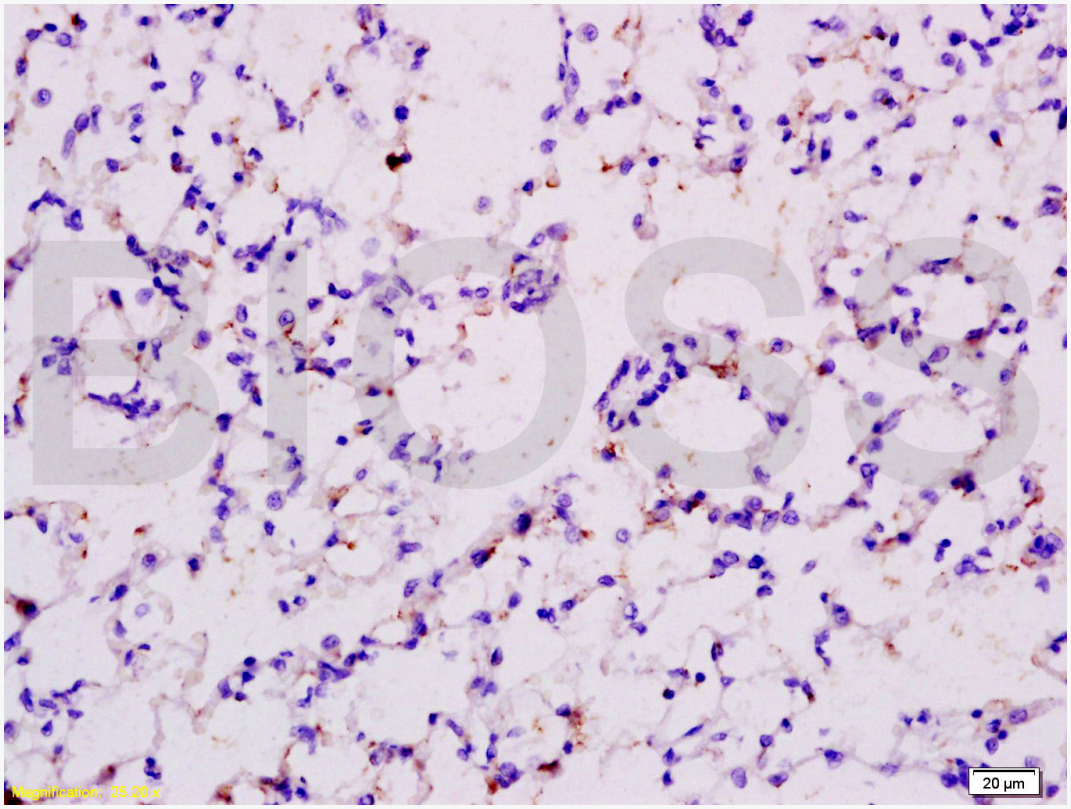


Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

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



Tissue/cell: rat lung tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, 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℃ for 20 min;

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