

Rabbit Epo-R Polyclonal Antibody | anti-EPOR antibody

Phospho-Epo-R (Tyr368) Antibody

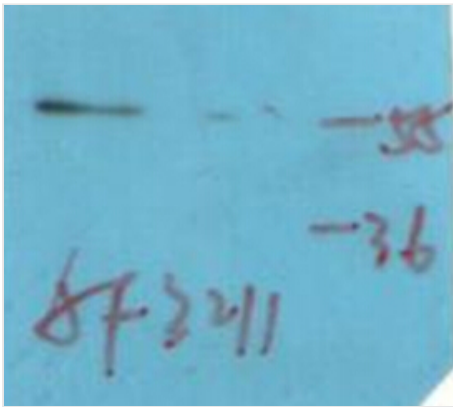
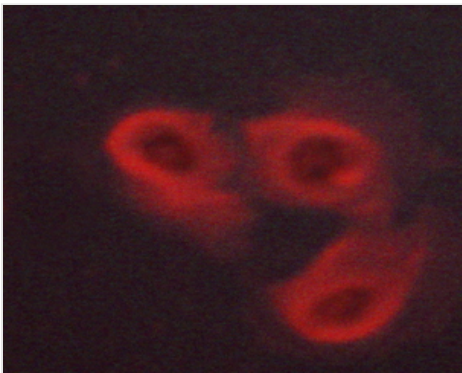
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321554	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

Epo-R; Polyclonal Antibody; Phospho-Epo-R (Tyr368) Antibody; EPO R; EPO-R; epor; EPOR_HUMAN; Erythropoietin receptor; Erythropoietin receptor precursor; MGC138358; anti-EPOR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-Epo-R (Tyr368) antibody detects endogenous levels of Epo-R only when phosphorylated at Tyrosine 368
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	508
Applicable Applications for anti-EPOR antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Epo-R around the phosphorylation site of Tyrosine 368
Subcellular Location	Plasma Membrane; Extracellular Region or Secreted
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.
Predicted Cross Reactivity	Pig, Sheep, Dog
Similarity	Pig (86%), Sheep (86%), Dog (86%)
Conjugation	Unconjugated
Epitope	Phospho Tyr368
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)
AAA321554 staining HepG2 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.

WB (Western Blot)
Western blot analysis of Epo-R phosphorylation expression in K562 whole cell lysates, The lane on the right is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-EPOR antibody

Description: Erythropoiesis is regulated through the interaction of erythropoietin (Epo) with its receptor, EpoR, a member of the cytokine superfamily of receptors. The human EpoR is a 507 amino acid transmembrane protein that forms homodimers following erythropoietin activation and is related to the interleukin 2 (IL-2) receptor beta chain subunit (IL-2Rbeta).

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.

Subunit Structure: Forms homodimers on EPO stimulation. The tyrosine-phosphorylated form interacts with several SH2 domain-containing proteins including LYN (By similarity), the adapter protein APS, PTPN6 (By similarity), PTPN11, JAK2, PI3 kinases, STAT5A/B, SOCS3, CRKL (By similarity). Interacts with INPP5D/SHIP1 (By similarity). The N-terminal SH2 domain of PTPN6 binds Tyr-454 and inhibits signaling through dephosphorylation of JAK2 (By similarity). APS binding also inhibits the JAK-STAT signaling. Binding to PTPN11, preferentially through the N-terminal SH2 domain, promotes mitogenesis and phosphorylation of PTPN11 (By similarity). Binding of JAK2 (through its N-terminal) promotes cell-surface expression (By similarity). Interacts with RHEX; this interaction occurs in a erythropoietin (EPO)-dependent manner (PubMed:25092874). Interaction with the ubiquitin ligase NOSIP mediates EPO-induced cell proliferation. Interacts with ATXN2L.

Post-translational Modifications: On EPO stimulation, phosphorylated on C-terminal tyrosine residues by JAK2. The phosphotyrosine motifs are also recruitment sites for several SH2-containing proteins and adapter proteins which mediate cell proliferation. Phosphorylation on Tyr-454 is required for PTPN6 interaction, Tyr-426 for PTPN11. Tyr-426 is also required for SOCS3 binding, but Tyr-454/Tyr-456 motif is the preferred binding site. Ubiquitination at Lys-281 mediates receptor internalization, whereas ubiquitination at Lys-453 promotes trafficking of activated receptors to the lysosomes for degradation (By similarity). Ubiquitinated by NOSIP; appears to be either multi-monoubiquitinated or polyubiquitinated. Ubiquitination mediates proliferation and survival of EPO-dependent cells.

Similarity: The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding. The box 1 motif is required for JAK interaction and/or activation. Contains 1 copy of a cytoplasmic motif that is referred to as the immunoreceptor tyrosine-based inhibitor motif (ITIM). This motif is involved in modulation of cellular responses. The phosphorylated ITIM motif can bind the SH2 domain of several SH2-containing phosphatases. Belongs to the type I cytokine receptor family. Type 1 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503591
NCBI GeneID	2057
NCBI Accession #	NP_000112.1
NCBI GenBank Nucleotide #	NM_000121.3
UniProt Accession #	P19235; Q15443; Q2M205; B2RCG4

Molecular Weight	Observed: 55 kDa Predicted: 56 kDa
NCBI Official Full Name	erythropoietin receptor
NCBI Official Synonym Full Names	erythropoietin receptor
NCBI Official Symbol	EPOR
NCBI Official Synonym Symbols	EPO-R
NCBI Protein Information	erythropoietin receptor
UniProt Protein Name	Erythropoietin receptor
UniProt Gene Name	EPOR
UniProt Synonym Gene Names	EPO-R

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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