

Rabbit EPOR Polyclonal Antibody | anti-EPOR antibody

EPOR Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326846	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

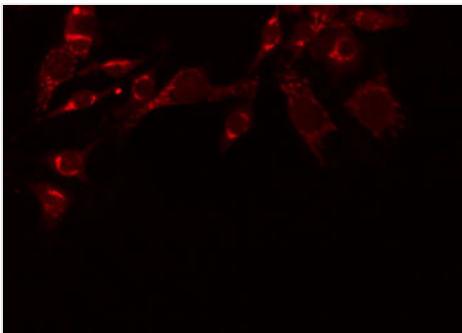
PRODUCT SYNONYMS

EPOR; Polyclonal Antibody; EPOR Antibody; EPO R; EPO-R; epor; EPOR_HUMAN; Erythropoietin receptor; Erythropoietin receptor precursor; MGC138358; anti-EPOR antibody

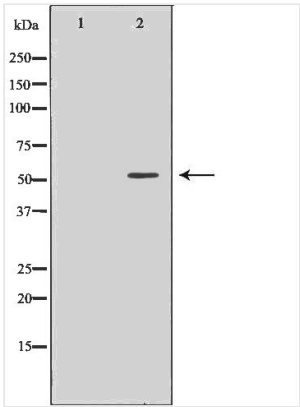
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	EPOR antibody detects endogenous levels of total EPOR
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
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 synthetic peptide of human EPOR
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 from in early-stage erythroid progenitor cells.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)
AAA326846 staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of Hela cell lysate, using EPOR Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-EPOR antibody

Description: This gene encodes the erythropoietin receptor which is a member of the cytokine receptor family. Upon erythropoietin binding, this receptor activates Jak2 tyrosine kinase which activates different intracellular pathways including: Ras/MAP kinase, phosphatidylinositol 3-kinase and STAT transcription factors. The stimulated erythropoietin receptor appears to have a role in erythroid cell survival. Defects in the erythropoietin receptor may produce erythroleukemia and familial erythrocytosis. Dysregulation of this gene may affect the growth of certain tumors. Alternate splicing results in multiple transcript variants.

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 mono-ubiquitinated 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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Online datasheet: <https://stage.aaabiotech.com/polyclonal/epor-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/326846>