

Rabbit Anti-Human Erythropoietin Receptor Monoclonal Antibody

Cat. No. CAB11532RH Lot. No. (See product label)

SPECIFICATION

Product Overview	Rabbit Monoclonal Antibody to Human Erythropoietin Receptor Protein
Species	Human
Source	Rabbit
Antigen Description	Erythropoietin (EPO) is the major glycoprotein hormone regulator of mammalian erythropoiesis , and is produced by kidney and liver in an oxygen-dependent manner. The biological effects of EPO are mediated by the specific erythropoietin receptor (EPOR) on bone marrow erythroblasts, which transmits signals important for both proliferation and differentiation along the erythroid lineage. EPOR is a type 1 single-transmembrane cytokine receptor, and belongs to the homodimerizing subclass which functions as ligand-induced or ligand-stabilized homodimers. EPO binding to EPOR triggers auto- or trans-phosphorylation of a protein-tyrosine kinase JAK2 bound to the receptor cytosolic (CT) domain, and subsequently JAK2 activates a variety of intracellular signal substrates including Ras/MAPK, phosphatidylinositol 3-kinase and STAT transcription factors. The stimulated EPOR appears to function in erythroid cell survival through preventing the PCD, and is also suggested to play a neuroprotective role for its expression in mammalian brains. Aberrantly expressed EPOR is implicated in pathogenesis of various human diseases including erythroleukemia and familial erythrocytosis.
Specificity	Human EPOR. No cross-reactivity in ELISA with Mouse EPOR,Human cell lysate

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	(293 cell line)
Immunogen	Recombinant Human EPOR Protein
Isotype	Rabbit IgG
Clone	A005
Applications	Western blot; ELISA
Dilution	Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human EPOR in WB. ELISA: This antibody can be used at 0.1-0.2 µg/mL with the appropriate secondary reagents to detect Human EPOR. The detection limit for Human EPOR is approximately 0.00245 ng/well.
Preparation	This antibody was obtained from a rabbit immunized with purified, human cell-derived, recombinant Human EPOR
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70 °C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	EPOR erythropoietin receptor [Homo sapiens]
Official Symbol	EPOR

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Synonyms	EPOR; erythropoietin receptor; EPO-R; MGC138358;
Gene ID	2057
mRNA Refseq	NM_000121
Protein Refseq	NP_000112
MIM	133171
UniProt ID	P19235
Chromosome Location	19p13.3-p13.2
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; EPO Receptor Signaling, organism-specific biosystem; EPO signaling pathway, organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Jak-STAT signaling pathway, organism-specific biosystem;
Function	erythropoietin receptor activity; identical protein binding; protein binding; receptor activity;