EPOR & CD131 Heterodimer (EPOR&CD131) Active Protein

PRODUCT OVERVIEW

Product Name	EPOR & CD131 Heterodimer (EPOR&CD131), Active Protein
Full Product Name	EPOR & CD131 Heterodimer Protein, Human, Recombinant (hFc Tag)
Product Gene Name	EPOR&CD131 active protein
Product Synonym Names	Human EPOR & CD131 Heterodimer Protein; EPO-R Protein, Human; erythropoietin receptor
Sequence	Met1-Pro25 0&Trp17-Tr p443
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.
Molecular Weight	55,065 Da
Chromosome Location	Chromosome: 19; NC_000019.9 (11487881..11495018, complement). Location: 19p13.3-p13.2
OMIM	133100
3D Structure	ModBase 3D Structure for P19235
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ala 25
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the extracellular domain (Met 1-Pro 250) of human EPOR (NP_000112.1) linked with the extracellular domain (Trp 17-Trp 443) of human CD131 (NP_000386.1) by a peptide linker was fused with the Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	1. Measured by its ability to bind rat EPO-His in a functional ELISA. 2. Measured by its ability to bind mouse EPO-His in a functional ELISA.
Related Product Information for EPOR&CD131 active protein	MBS8123604 is an active protein targeting EPOR&CD131. Also known as EPOR & CD131 Heterodimer Protein, Human, Recombinant (hFc Tag). Host: HEK293 Cells.
Other Notes	Small volumes of EPOR&CD131 active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of EPOR&CD131 active protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EPOR&CD131. It may not necessarily be applicable to this product.

NCBI GI #	4503591
NCBI GeneID	2057
NCBI Accession #	NP_000112.1
NCBI Related Accession #	NP_000386.1
UniProt Primary Accession #	P19235
UniProt Secondary Accession #	Q15443; Q2M205; B2RCG4
UniProt Related Accession #	P19235
GenBank Nucleotide #	NM_000121.3
NCBI Official Full Name	erythropoietin receptor
NCBI Official Synonym Full Names	erythropoietin receptor
NCBI Official Symbol	EPOR
NCBI Official Synonym Symbols	EPO-R
UniProt Protein Name	Erythropoietin receptor
UniProt Gene Name	EPOR
UniProt Synonym Gene Names	EPO-R
UniProt Entry Name	EPOR_HUMAN
NCBI Protein Information	erythropoietin receptor
NCBI Summary for EPOR&CD131	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.[provided by RefSeq, May 2010]

UniProt Comments for EPOR&CD131	EPOR: erythropoietin receptor: a member of the cytokine receptor family. Mediates erythropoietin-induced erythroblast proliferation, differentiation and survival. Upon EPO stimulation, EPOR dimerizes triggering the JAK2/STAT5 signaling cascade. In some cell types, can also activate STAT1 and STAT3. Forms homodimers on EPO stimulation. Tyrosine-phosphorylated EpoR may bind several SH2 domain-containing proteins including LYN, the adapter protein APS, SHP-1, SHP-2, JAK2, PI3 kinases, STAT5A/B, SOCS3, and CRKL. Defects in the erythropoietin receptor may produce erythroleukemia and familial erythrocytosis. Three alternatively-spliced isoforms have been described. Isoform EPOR-T, missing the cytoplasmic tail, acts as a dominant-negative receptor of EPOR-mediated signaling. Protein type: Membrane protein, integral; Receptor, cytokine Chromosomal Location of Human Ortholog: 19p13.3-p13.2 Cellular Component: integral to plasma membrane; extracellular region Molecular Function: identical protein binding; protein binding; erythropoietin receptor activity Biological Process: heart development; brain development; decidualization; signal transduction Disease: Erythrocytosis, Familial, 1
Research Articles on EPOR&CD131	**1.** EPOR expression may be involved in tumor progression and proliferation in HER2-positive breast cancer.EPOR contributes to the mechanism of trastuzumab resistance in breast cancer.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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