abcam

Product datasheet

Recombinant human EPO-R protein (Fc Chimera) ab84001

1 图像

描述

产品名称	重组人EPO-R蛋白(Fc Chimera)
生物活性	The ED_{50} of ab84001 is typically 0.15-2.5 ng/ml as measured by its ability to neutralize EPO-mediated proliferation of TF-1 cells.
纯度	> 95 % SDS-PAGE.
表达系统	HEK 293 cells
Accession	P19235
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	Theoretical sequence: APPPNLPDPKFESKAALLAARGPEELLCFTERLEDLVCF WEEAASAGV GPGNYSFSYQLEDEPWKLCRLHQAPTARGAVRFWCSLPT ADTSSFVPL ELRVTAASGAPRYHRVIHINEVVLLDAPVGLVARLADES GHVVLRWLP PPETPMTSHIRYEVDVSAGNGAGSVQRVEILEGRTECVL SNLRGRTRY TFAVRARMAEPSFGGFWSAWSEPVSLLTPSDLDPRIPKV DKKVEPKSC DKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEV TCVVVDVSH EDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLT VLHQDWLNG KEYKCRVSNKALPAPIEKTISKAKGQPREPQVYTLPPSR DELTKNQVS LTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGS FFLYSKLTV DKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
氨基酸	25 to 250
额外的序列信息	Encodes the signal peptide & extracellular domain of human Erythropoietin receptor (EPO R, aa

1-250) fused to the Fc region IgG1 (aa 93-330). Chimeric protein was expressed in modified 293 cells.

技术指标

Our **Abpromise guarantee** covers the use of **ab84001** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用

Functional Studies

SDS-PAGE

形式

Lyophilized

补充说明

Previously labelled as EPO Receptor.

制备和贮存

稳定性和存储

Shipped at 4°C. After reconstitution store at -20ºC. Avoid freeze / thaw cycles.

Constituents: 1% Human serum albumin, 10% Trehalose

This product is an active protein and may elicit a biological response in vivo, handle with caution.

复溶

It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. Following reconstitution, short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.

常规信息

功能

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.

组织特异性

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.

疾病相关

Defects in EPOR are the cause of erythrocytosis familial type 1 (ECYT1) [MIM:133100]. ECYT1 is an autosomal dominant disorder characterized by increased serum red blood cell mass, elevated hemoglobin and hematocrit, hypersensitivity of erythroid progenitors to erythropoietin, erythropoietin low serum levels, and no increase in platelets nor leukocytes. It has a relatively benign course and does not progress to leukemia.

序列相似性

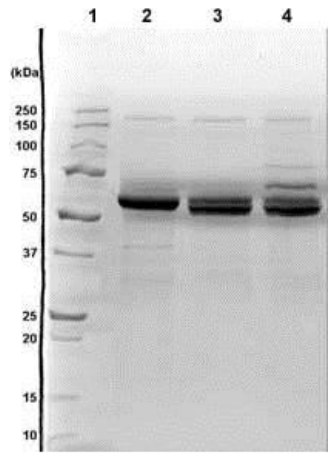
Belongs to the type I cytokine receptor family. Type 1 subfamily.
Contains 1 fibronectin type-III domain.

结构域

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.

翻译后修饰	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. Ubiquitinated by NOSIP; appears to be either multi-monoubiquitinated or polyubiquitinated. Ubiquitination mediates proliferation and survival of EPO-dependent cells.
细胞定位	Cell membrane and Secreted. Secreted and located to the cell surface.

图片



SDS-PAGE - Recombinant human EPO-R protein (Fc Chimera) (ab84001)

Lane 1 – MW markers; Lane 2 – ab84001 ; Lane 3 – ab84001 treated with PNGase F to remove potential N-linked glycans; Lane 4 – ab84001 treated with a glycosidase cocktail to remove potential N- and O linked glycans. 10 µg of protein was loaded per lane. Gel was stained with Deep Purple™.
Appearance of additional band at lower MW after treatment with PNGase F indicates the presence of N-linked glycans. A possible subsequent drop in MW after treatment with a glycosidase cocktail indicates O-linked glycans may be present. Additional high MW bands in lane 4 are glycosidase enzymes.

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