abcam

Product datasheet

Anti-EPO Receptor antibody ab61162

1 Abreviews 1 References 2 Images

Overview

Product name	Anti-EPO Receptor antibody
Description	Rabbit polyclonal to EPO Receptor
Host species	Rabbit
Specificity	Detects total EPO Receptor levels.
Tested applications	**Suitable for:** ICC/IF, WB, ELISA
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic non-phosphopeptide from human EPO Receptor, designed around the phosphorylation site of tyrosine 368 (DTY^{P}LV)

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS (without Mg^{2+} and Ca^{2+}), 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab61162** in the following tested applications.

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

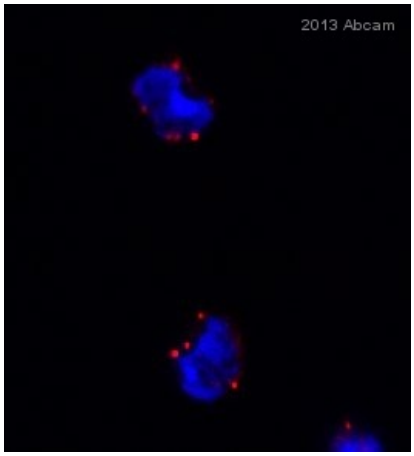
Application	Abreviews	Notes
ICC/IF		1/100.
WB		1/500 - 1/1000. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).

Application	Abreviews	Notes
ELISA		1/5000.

Target

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. Isoform EPOR-T acts as a dominant-negative receptor of EPOR-mediated signaling.
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.
Involvement in disease	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.
Sequence similarities	Belongs to the type I cytokine receptor family. Type 1 subfamily. Contains 1 fibronectin type-III domain.
Domain	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.
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. Ubiquitinated by NOSIP; appears to be either multi-monoubiquitinated or polyubiquitinated. Ubiquitination mediates proliferation and survival of EPO-dependent cells.
Cellular localization	Cell membrane and Secreted. Secreted and located to the cell surface.

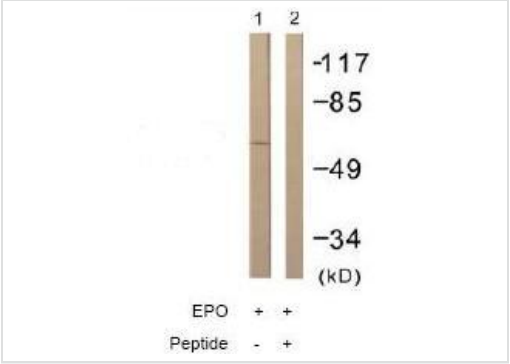
Images



Immunocytochemistry/ Immunofluorescence - Anti-EPO Receptor antibody (ab61162)

This image is courtesy of an anonymous Abreview

ab166162 staining EPO Receptor in NIH3T3 cell line from Mouse fibroblasts by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with Triton X-100 0.1% and blocked with 10% serim for 60 minutes at 24°C. Samples were incubated with primary antibody (1/100) for 16 hour at 4°C. An Alexa Fluor®488-conjugated Donkey anti-rabbit polyclonal(1/500) was used as the secondary antibody.



Western blot - Anti-EPO Receptor antibody (ab61162)

All lanes : Anti-EPO Receptor antibody (ab61162) at 1/500 dilution

Lane 1 : Cos 7 cells treated with EPO (20U/ml, 15 mins)
Lane 2 : Cos 7 cells treated with EPO (20U/ml, 15 mins) with immunizing peptide

Predicted band size: 55 kDa
Observed band size: 55 kDa

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors