

ARG82589 Human EPO Receptor ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82589 Human EPO Receptor ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human EPO Receptor in serum, plasma and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	This kit could assay both natural and recombinant Human EPO Receptor. No significant cross-reactivity or interference was observed in the following samples: Human: IFN gamma, IL1 beta, IL2, IL4, IL5, IL6, IL8, IL10, IL12, IL17A, IL18, IL21, IL22, IL23, MCP1, TGF beta 1, TNF alpha and VEGF. Mouse: GM-CSF, IFN gamma, IL1 beta, IL2, IL4, IL6, IL10, IL17A and TNF alpha. Rat: IFN gamma, IL1 beta, IL4, IL6, IL10 and TNF alpha.
Target Name	EPO Receptor
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	3.9 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	7.8 - 500 pg/ml
Sample Volume	50 µl
Precision	Intra-Assay CV: 2.8% Inter-Assay CV: 2.5%
Alternate Names	Erythropoietin receptor; EPO-R

Application Instructions

Assay Time	~ 3.5 hours
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Properties

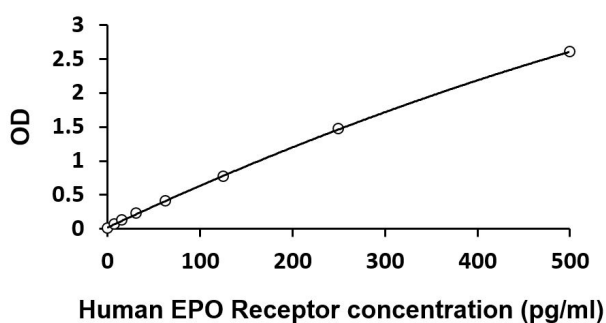
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	EPOR
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Gene Full Name	erythropoietin receptor
Background	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]
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. [UniProt]
Highlight	Related products: EPO Receptor antibodies ; EPO Receptor ELISA Kits ; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	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 multi-monoubiquitinated or polyubiquitinated. Ubiquitination mediates proliferation and survival of EPO-dependent cells. [UniProt]
Cellular Localization	Cell membrane; Single-pass type I membrane protein. Isoform EPOR-S: Secreted. Note=Secreted and located to the cell surface. [UniProt]

Images



ARG82589 Human EPO Receptor ELISA Kit standard curve image

ARG82589 Human EPO Receptor ELISA Kit results of a typical standard run with optical density reading at 450 nm.