

Erythropoietin receptor/EpoR Protein, Mouse (sf9, Fc)

Cat. No.:	HY-P73033
Synonyms:	EpoR; EPO-R; Erythropoietin R; Erythropoietin receptor
Species:	Mouse
Source:	Sf9 insect cells
Accession:	P14753 (M1-P249)
Gene ID:	13857
Molecular Weight:	Approximately 58.6 kDa

PROPERTIES

AA Sequence	<p>MDKLRVPLWP RVGPLCLLLA GAAWAPSPSL PDPKFESKAA</p> <p>LLASRGSEEL LCFTQRLEDL VCFWEEAASS GMDFNYSFSY</p> <p>QLEGESRKSC SLHQAPTVRG SVRFWCSLPT ADTSSFVPLE</p> <p>LQVTEASGSP RYHR I HINE VVLLDAPAGL LARRAEEGSH</p> <p>VVLRWLPPPG APMTTHIRYE VDVSAGNRAG GTQRVEVLEG</p> <p>RTECVLSNLR GGTRYTFAVR ARMAEPSFSG FWSAWSEPAS</p> <p>LLTASDLLDP</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 100 mM Glycine, 10 mM NaCl, pH 7.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Erythropoietin receptor (EpoR) serves as the key receptor for erythropoietin, orchestrating erythroblast proliferation and differentiation upon EPO stimulation. Through EpoR dimerization, it initiates the JAK2/STAT5 signaling cascade, leading to various cellular responses. In addition to activating STAT1 and STAT3 in specific cell types, EpoR may also engage the LYN tyrosine kinase. Upon EPO binding, EpoR forms homodimers and undergoes tyrosine phosphorylation, facilitating interactions with diverse SH2 domain-containing proteins such as LYN, APS, PTPN6, PTPN11, JAK2, PI3 kinases, STAT5A/B,
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SOCS3, CRKL, and ATXN2L. These interactions, intricate and multifaceted, modulate downstream signaling events, including mitogenic pathways and cell-surface expression. Notably, EpoR's interaction with NOSIP and the ubiquitin ligase NOSIP is implicated in EPO-induced cell proliferation, highlighting the regulatory complexity of EpoR-mediated signaling. Additionally, EpoR forms heterooligomers with FSFFV gp55 and associates with INPP5D/SHIP1, further expanding its functional repertoire in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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