Recombinant EPOR protein (His tag)

Catalog Number	542167
Synonyms	EPO-R
Species	Human
Expression System	E. coli
Accession	P19235
Molecular Weight	Predictes a molecular mass of 25.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	32-250
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 32-250 aa (P19235) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	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 unless customers require otherwise.

Description

Description	Recombinant Human Erythropoietin Receptor (EPO-R) Fragment (aa 32-250) is a high-purity protein designed for studying erythropoietin-mediated signaling pathways. This fragment encompasses the critical Fibronectin type-III domain (aa 147-247), making it an ideal tool for domain-specific functional studies, receptor-ligand interactions, and erythroblast differentiation research. The Erythropoietin Receptor (EPOR) is a crucial transmembrane protein in humans that mediates erythropoietin-induced erythroblast proliferation and differentiation. Upon EPO stimulation, EPOR dimerizes and triggers the JAK2/STAT5 signaling cascade, with additional activation of STAT1, STAT3, and LYN tyrosine kinase in some cell types. The full-length protein is located in the cell membrane as a single-pass type I membrane protein, while alternative isoforms include both membrane-bound and secreted forms. EPOR plays a fundamental role in red blood cell production and hematopoietic system regulation, with specific isoforms acting as dominant-negative regulators of EPOR-mediated signaling.