

**RPES8145**

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## Product Information

<b>Product SKU:</b> RPES8145	<b>Expression Host:</b> E.coli	<b>Size:</b> 20µg
<b>Tag:</b> N-Gst	<b>Reactivity:</b> Mouse	<b>Accession:</b> P07321

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## Additional Information

<b>Calculated MW:</b> 44.1 kDa	<b>Observed MW:</b> 50 kDa
<b>Sequence:</b> Ala27-Arg192	

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## Protein Information

**Background:** Erythropoietin is a member of the EPO / TPO family. It is a secreted, glycosylated cytokine composed of four alpha helical bundles. Erythropoietin can be found in the plasma and regulates red cell production by promoting erythroid differentiation and initiating hemoglobin synthesis. It also has neuroprotective activity against a variety of potential brain injuries and antiapoptotic functions in several tissue types. Erythropoietin is the principal hormone involved in the regulation of erythrocyte differentiation and the maintenance of a physiological level of circulating erythrocyte mass. It is produced by kidney or liver of adult mammals and by liver of fetal or neonatal mammals. Genetic variation in erythropoietin is associated with an susceptibility to microvascular complications of diabetes type 2. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis. It has a longer circulating half-life in vivo. Erythropoietin is being much misused as a performance-enhancing drug in endurance athletes.

**Synonyms:** EP, EPO alpha, EPO, Epoetin, Erythropoetin, Erythropoietin precursor, MVCD2

**Endotoxin:** < 10 EU/mg of the protein as determined by the LAL method

**Contact Details | Dublin, Ireland**

**Email:** [techsupport@assaygenie.com](mailto:techsupport@assaygenie.com) | **Web:** [www.assaygenie.com](http://www.assaygenie.com)

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**Formulation:** Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.

**Purity:** > 90% as determined by reducing SDS-PAGE.

**Bio-Activity:** Not validated for activity

**Storage:** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.