

## Product datasheet for **TP723837**

### EPO (NM\_000799) Human Recombinant Protein

#### Product data:

|                                       |  |
|---------------------------------------|--|
| Product Type:                         | Recombinant Proteins   |
| Description:                          | Purified recombinant protein of Human erythropoietin (EPO)   |
| Species:                              | Human  |
| Expression Host:                      | CHO  |
| Expression cDNA Clone or AA Sequence: | Human EPO, the region of Ala28-Arg192, from gene Accession# AAI43226.1   |
| Tag:                                  | Tag Free   |
| Predicted MW:                         | 18 kDa   |
| Concentration:                        | lot specific   |
| Purity:                               | >98%, as determined by Coomassie stained SDS-PAGE.   |
| Buffer:                               | 1 x PBS  |
| Bioactivity:                          | The ED50 is 0.2 - 1 ng/ml, corresponding to a specific activity of 1 - 5 x 10 <sup>6</sup> units/mg, determined by the dose dependent stimulation of TF-1 cells proliferation.   |
| Endotoxin:                            | Less than 0.01 ng per µg protein as determined by the LAL method   |
| Storage:                              | Store at -80°C.  |
| Stability:                            | Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to 6 months, or at -70°C or below until the expiration date. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles. |
| RefSeq:                               | <a href="#">NP_000790</a>  |
| Locus ID:                             | 2056   |
| UniProt ID:                           | <a href="#">P01588</a>   |
| RefSeq Size:                          | 1340   |
| Cytogenetics:                         | 7q22.1   |
| RefSeq ORF:                           | 579  |
| Synonyms:                             | DBAL; ECT5; EP; MVCD2  |



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**Summary:**

This gene encodes a secreted, glycosylated cytokine composed of four alpha helical bundles. The encoded protein is mainly synthesized in the kidney, secreted into the blood plasma, and binds to the erythropoietin receptor to promote red blood cell production, or erythropoiesis, in the bone marrow. Expression of this gene is upregulated under hypoxic conditions, in turn leading to increased erythropoiesis and enhanced oxygen-carrying capacity of the blood. Expression of this gene has also been observed in brain and in the eye, and elevated expression levels have been observed in diabetic retinopathy and ocular hypertension. Recombinant forms of the encoded protein exhibit neuroprotective activity against a variety of potential brain injuries, as well as antiapoptotic functions in several tissue types, and have been used in the treatment of anemia and to enhance the efficacy of cancer therapies. [provided by RefSeq, Aug 2017]

**Protein Families:**

Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

**Protein Pathways:**

Cytokine-cytokine receptor interaction, Hematopoietic cell lineage, Jak-STAT signaling pathway

**Product images:**