

EPO Knockout 293T cell lysate, Homozygous

Catalog No.: RM50165

Basic Information

Catalog No.

RM50165

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

EPO

Species

Human

Gene ID

2056

Swiss Prot

P01588

Synonyms

EP; DBAL; ECT5; MVCD2; EPO

Contact

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Background

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.

Product Information

Description

EPO Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:exon2 was deleted

Allele-2:exon2 was deleted

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging

1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping Conditions

4°C

Amount

50µL, 2µg/µL.

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT GCTGGGGCAGAGAC*****TCAGGGCTTCAGGGA
Mut GCTGGGGCAGAGAC***Deletion***TCAGGGCTTCAGGGA
Allele-1: exon2 was deleted

WT GCTGGGGCAGAGA *****CTCAGGGCTTCAGG
Mut GCTGGGGCAGAGA***Deletion***CTCAGGGCTTCAGG
Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and EPO knockout (KO) 293T cells, using sanger sequencing.