

Product datasheet for RC210775

EPO (NM_000799) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: EPO (NM_000799) Human Tagged ORF Clone
 Tag: Myc-DDK
 Symbol: EPO
 Synonyms: DBAL; ECYT5; EP; MVCD2
 Mammalian Cell Selection: Neomycin
 Vector: pCMV6-Entry (PS100001)
 E. coli Selection: Kanamycin (25 ug/mL)
 ORF Nucleotide Sequence: >RC210775 representing NM_000799
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGGTGCACGAATGCTCCTGCCTGGCTGTGGCTTCTCCTGTCCTGCTGTGCTCCCTCTGGGCCTCC
 CAGTCCTGGGCGCCCCACCACGCCTCATCTGTGACAGCCGAGTCTGGAGAGGTACCTCTTGAGGCCAA
 GGAGGCCGAGAATATCACGACGGGCTGTGCTGAACACTGCAGCTTGAATGAGAATACACTGTCCCAGAC
 ACCAAAGTTAATTTCTATGCCTGGAAGAGGATGGAGGTCGGGCAGCAGGCCGTAGAAGTCTGGCAGGGCC
 TGGCCCTGCTGTGGAAGCTGTCTGCGGGGCCAGGCCCTGTTGGTCAACTCTTCCAGCCGTGGGAGCC
 CCTGCAGCTGCATGTGGATAAAGCCGTCAGTGGCCTTCGCAGCCTCACCCTCTGCTTCGGGCTCTGGGA
 GCCCAGAAGGAAGCCATCTCCCCTCCAGATGCGGCCTCAGCTGCTCCACTCCGAACAATCACTGCTGACA
 CTTTCCGCAAACCTTCCGAGTCTACTCCAATTTCTCCGGGAAAGCTGAAGCTGTACACAGGGGAGGC
 CTGCAGGACAGGGGACAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210775 representing NM_000799
 Red=Cloning site Green=Tags(s)

MGVHECPAWLWLLL SLLSLPLGLPVLGAPPRLICDSRVLERYLLEAKEAENITGCAEHCSLNENITVPPD
 TKVNFYAWKRMEVGQQAQVEVWQGLALLSEAVLRGQALLVNSSQPWEPLQLHVDKAVSGLRSLTLLRALG
 AQKEAISPPDAASAAPLRTITADTFRKLFRVYSNFLRGKLLKLYTGEACRTGDR

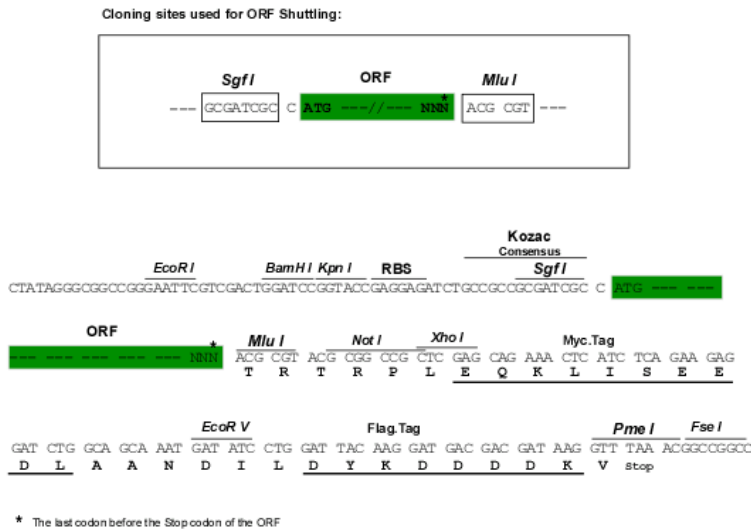
TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mg2339_f06.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_000799

ORF Size: 579 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

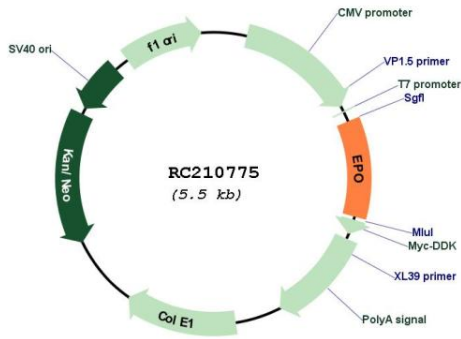
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

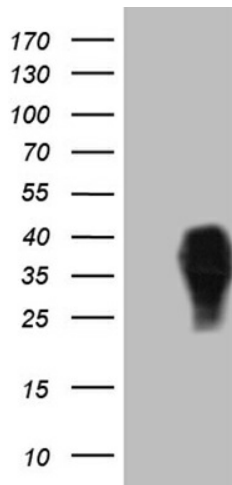
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000799.4
RefSeq Size:	1340 bp
RefSeq ORF:	582 bp
Locus ID:	2056
UniProt ID:	P01588
Cytogenetics:	7q22.1
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, Hematopoietic cell lineage, Jak-STAT signaling pathway
MW:	21.31 kDa
Gene Summary:	<p>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]</p>

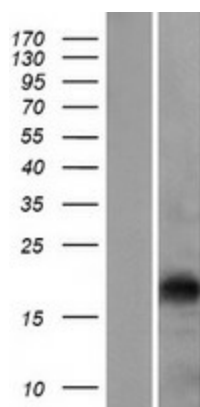
Product images:



Circular map for RC210775



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EPO (Cat# RC210775, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EPO (Cat# [TA812059]). Positive lysates [LY400277] (100ug) and [LC400277] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400277]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210775 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).