

Product datasheet for **RG215550**

Hephaestin (HEPH) (NM_138737) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	Hephaestin
Synonyms:	CPL
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG215550 representing NM_138737
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTCAGGCCACCTCCTCTGGGCTCTGCTGTTTCATGCAGTCCTTGTGGCCTCAACTGACTGATGGAG
CCACTCGAGTCTACTACCTGGGCATCCGGGATGTGCAGTGGAACATATGCTCCCAAGGGAAGAAATGTCAT
CACGAACAGCCTCTGGACAGTGACATAGTGGCTTCCAGCTTCTTAAAGCTGACAAGAACCGGATAGGG
GGAACCTACAAGAAGACCATCTATAAGAATAACAAGGATGACTCATACAGATGAAGTGGCCAGCCTG
CCTGGTGGGCTTCTCTGGGCCAGTGTTCAGGCTGAAGTGGGGGATGTATTCTTATTCACCTGAAGAA
TTTTGCCACTCGTCCCTATACCATCCACCCTCATGGTGTCTTCTACGAGAAGGACTCTGAAGGTTCCCTA
TACCCAGATGGCTCCTCTGGGCCACTGAAAGCTGATGACTCTGTTCCCCGGGGGCGAGCCATATCTACA
ACTGGACCATTCAGAGGCCATGCACCCACCGATGCTGACCCAGCGTGCCTCACCTGGATCTACCATTC
TCATGTAGATGCTCCACGAGACATTGCAACTGGCCTAATTGGGCCTCTCATCACTGTAAAAGAGGAGCC
CTGGATGGGAACTCCCCTCCTCAACGCCAGGATGTAGACCATGATTTCTTCTCCTCTTTCAGTGTGGTAG
ATGAGAACCTCAGCTGGCATCTCAATGAGAACATTGCCACTTACTGCTCAGATCCTGCTTCAGTGGACAA
AGAAGATGAGACATTTTCAGGAGAGCAATAGGATGCATGCAATCAATGGCTTTGTTTTGGGAATTTACCT
GAGCTGAACATGTGTGCACAGAAACGTGTGGCCTGGCACTTGTGTCATGGGCAATGAAATTTGATGTCC
ACACAGCATTTTTCCATGGACAGATGCTGACTACCCGTGGACACCACACTGATGTGGCTAACATCTTTCC
AGCCACCTTTGTGACTGCTGAGATGGTGCCTGGGAACCTGGTACCTGGTTAATTAGCTGCCAAGTGAAC
AGTCACTTTTCGAGATGGATGCAGGCACTCTACAAGTCAAGTCTTGTCCATGGCCCTCTGTGGACC
TGCTCACAGGCAAGTTTCGACAGTACTTCAATTGAGGCCATGAGATTCAATGGGACTATGGCCCGATGGG
GCATGATGGGAGTACTGGGAAGAAATTTGAGAGAGCCAGGCAGTATCTCAGATAAGTTTTCCAGAAGAGC
TCCAGCCGAATTTGGGGCACTTACTGGAAGTGCATATGAAGCCTTTCAAGATGAGACATTCGAAGAGA
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AAGTAACATACCGCTGGACAGTCCCCCTCATGCCGGTCCCAGTCTGCTGCTGTCTCACTTG
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AGTTGGTGATATCCTGACTGTGGTATTCAAGAATAATGCCAGCCGCCCTACTCTGTGCATGCTCATGGA
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TCCCAGAGAGGTCTGGCCCTGGGCCCAATGACTCTGCTTGTGTTTCTGGATCTATTATTCTGCAGTGGGA
TCCCATCAAGGACATGTATAGTGGCCTGGTGGGGCCCTTGGCTATCTGCCAAAAGGGCATCTGGAGCCC
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GACTTTTGAAGTTGTGGAGATGGTGGCCAGCAACCTGGGACATGGCTGATGCACTGCCATGTGACTGAC
CATGTCCATGCTGGCATGGAGACCCTCTTCACTGTTTTTCTCGAACAGAACACTTAAGCCCTCTCACCG
TCATACCAAAGAGACTGAAAAAGCAGTGGCCCCCAGAGACATTGAAGAAGGCAATGTGAAGATGCTGGG
CATGCAGATCCCCATAAGAATGTTGAGATGCTGGCCTCTGTTTTGTTGCCATTAGTGTCAACCTTCTG
CTCGTTGTTCTGGCTCTTGGTGGAGTGGTTGGTACCAACATCGACAGAGAAAGCTACGACGCAATAGGA
GGTCCATCCTGGATGACAGCTTCAAGCTTCTGTCTTTCAAACAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG215550 representing NM_138737

Red=Cloning site Green=Tags(s)

MESGHLWALLFMQSLWPQLTDGATRVYYLGIRDVQWNYAPKGRNVITNQPLDSDIVASSFLKSDKNRIG
GTYKKTIIKEYKDDSYTDEVAQPAWLGFPGVLAQEVGDVILIHKNFATRPYTIHPHGVFYEKDESESL
YPDGSSGPLKADDSVPPGGSHIYNWTIPEGHAPTDADPACLTWIYHSHVDAPRDIATGLIGPLITCKRGA
LDGNSPPQRQDVHDFLLFSVVDENLSWHLNENIATYCSDPASVDKEDETQESNRMHAINGFVFGNLP
ELNMCAQKRVAVHLFGMGNEIDVHTAFFHQMLTTRGHHTDVANIFPATFVTAEMVPWEPGTWLISCQVN
SHFRDGMQALYKVKSCSMAPPVDLLTGKVRQYFIEAHEIQWDYGPMDHGSTGKNLREPGSISDKFFQKS
SSRIGGTYYKVRVEAFQDETQEKMHLEEDRHLGILGPVIRAEVGTIQVVFYNRASQPFMSQPHGVFYE
KDYEGTVYNDGSSYPGLVAKPFEKVYRWTVPFHAGPTAQDPACLTWMYFSAADPIRDTNSGLVGPLLVC
RAGALGADGKQKGVDEKFFLLFTVLDENKSWYSNANQAAMLDLFRLLSEDIQEGFQDSNRMHAINGFLFSN
LPRLDCKGDTVAWHLLGLGTETDVHGVFMFGNTVQLQGMKGAAMLFPHTFVMAIMQPDNLGTFEIYCQ
AGSHREAGMRAIYNVSQCPGHQATPRQRYQAARIYYIMAEVEWDYCPDRSWEWHNQSEKDSYGYIFL
SNKDGLLGSRYKKAVFREYTDGTFRIPRPTGPEEHLGILGPLIKGEVGDILTVVFKNNASRPYSVHAHG
VLESTTVWPLAAEPGEVVTYQWNIPERSGPGPNDACSWSIYSAVDPIKDMYSGLVGLAICQKGIPL
HGGRSMDREFALLFLIFDENKSWYLEENVATHGSQDPGSINLQDETFLSNKMHAINGLYANLRLTM
YQGERVAWYMLAMGQDVLHTIHFHAESFLYRNGENYRADVVDLPFGTTEVEMVASNPGLTLMHCHVTD
HVHAGMETLFTVFSRTEHLSPITVITKETEKAVPPRDIIEGNVKMLGMQPIKKNVEMLASVLVAISVTLL
LVVLALGGVWVYQHRQRKLRRNRRSILDDSFKLLSFKQ

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_138737

ORF Size: 3474 bp

OTI Disclaimer: 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:

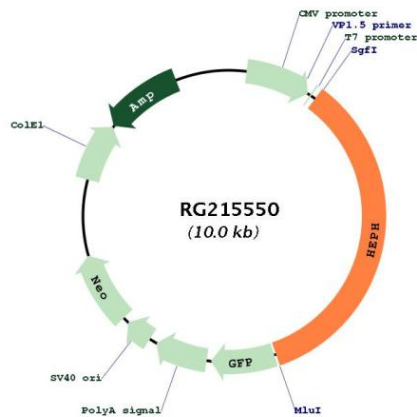
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_138737.1](#), [NP_620074.1](#)

RefSeq Size:	4279 bp
RefSeq ORF:	3639 bp
Locus ID:	9843
UniProt ID:	Q9BQS7
Cytogenetics:	Xq12
Domains:	Cu-oxidase
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	This gene encodes a member of the multicopper oxidase protein family. The encoded protein is involved in the transport of dietary iron from epithelial cells of the intestinal lumen into the circulatory system, and may be involved in copper transport and homeostasis. In mouse, defects in this gene can lead to severe microcytic anemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

Product images:



Circular map for RG215550