

Cloning Scheme:


ACCN: NM_021175

ORF Size: 252 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.

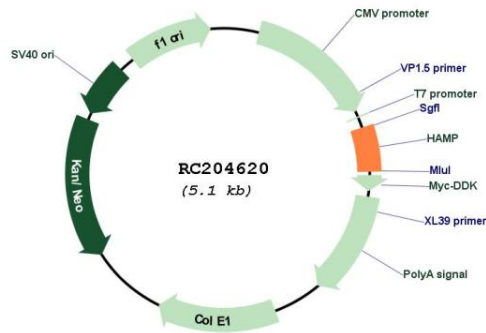
RefSeq: [NM_021175.4](#)

RefSeq Size: 430 bp

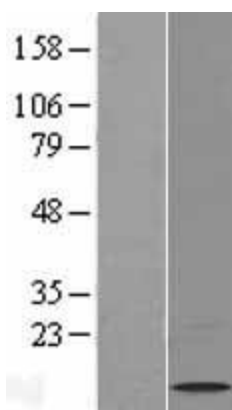
RefSeq ORF: 255 bp
Locus ID: 57817
UniProt ID: [P81172](#)
Cytogenetics: 19q13.12
Protein Families: Secreted Protein, Transmembrane
MW: 9.4 kDa

Gene Summary: The product encoded by this gene is involved in the maintenance of iron homeostasis, and it is necessary for the regulation of iron storage in macrophages, and for intestinal iron absorption. The preproprotein is post-translationally cleaved into mature peptides of 20, 22 and 25 amino acids, and these active peptides are rich in cysteines, which form intramolecular bonds that stabilize their beta-sheet structures. These peptides exhibit antimicrobial activity against bacteria and fungi. Mutations in this gene cause hemochromatosis type 2B, also known as juvenile hemochromatosis, a disease caused by severe iron overload that results in cardiomyopathy, cirrhosis, and endocrine failure. [provided by RefSeq, Oct 2014]

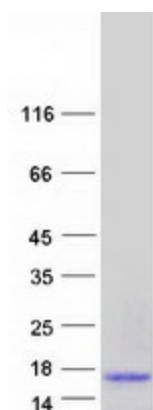
Product images:



Circular map for RC204620



Western blot validation of overexpression lysate (Cat# [LY402850]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204620 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HAMP protein (Cat# [TP304620]). The protein was produced from HEK293T cells transfected with HAMP cDNA clone (Cat# RC204620) using MegaTran 2.0 (Cat# [TT210002]).