

Product datasheet for RC207688

HB EGF (HBEGF) (NM_001945) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: HB EGF (HBEGF) (NM_001945) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: HB EGF
Synonyms: DTR; DTS; DTSF; HEGFL
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC207688 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGCTGCTGCCGTCCGTGGTGTCTGAAGCTCTTTCTGGCTGCAGTTCTCTCGGCACTGGTGACTGGCG
 AGAGCCTGGAGCGGCTTCGGAGAGGGCTAGCTGCTGGAACCAGCAACCCGGACCCCTCCACTGTATCCAC
 GGACCAGCTGCTACCCCTAGGAGCGGCCGGGACCGGAAAGTCCGTGACTTGCAAGAGGCAGATCTGGAC
 CTTTTGAGAGTCACTTTATCCTCAAGCCACAAGCACTGGCCACACCAACAAGGAGGAGCACGGGAAAA
 GAAAGAAGAAAGCAAGGGGCTAGGGAAGAAGAGGGACCCATGTCTTCGGAATACAAGGACTTCTGCAT
 CCATGGAGAATGCAAAATATGTGAAGGAGCTCCGGGCTCCCTCCTGCATCTGCCACCCGGTTACCATGGA
 GAGAGGTGTCATGGGCTGAGCCTCCAGTGAAAAATCGCTTATATACCTATGACCACACAACCATCCTGG
 CCGTGGTGGCTGTGGTGTCTGTCTGTCTGCTGGTTCATCGTGGGCTTCTCATGTTTAGGTACCA
 TAGGAGAGGAGTTATGATGTGAAAAATGAAGAGAAAGTGAAGTTGGGCATGACTAATCCCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207688 protein sequence
 Red=Cloning site Green=Tags(s)

MKLLPSVVLKFLAAVLSALVTGESLERLRRLAAGTSNPDPTVSTDQLLPLGGGRDRKVRDLQEADLD
 LLRVTLSSKPQALATPNKEEHGKRKKKGLGKKRDPCLRKYKDFCIHGECKYVKELRAPSCICHPGYHG
 ERCHGLSLPVENRLTYDHTTILAVVAVVLSVCLLIVGLLMFRYHRRGGYDVENEKVKLGMTNSH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mk6125_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001945

ORF Size: 624 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.

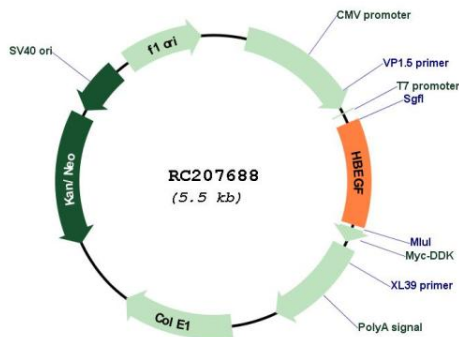
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001945.3](#)

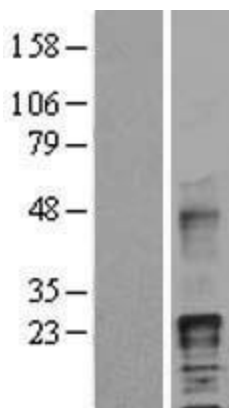
RefSeq Size: 2381 bp

RefSeq ORF:	627 bp
Locus ID:	1839
UniProt ID:	Q99075
Cytogenetics:	5q31.3
Domains:	EGF
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, GnRH signaling pathway
MW:	23.1 kDa
Gene Summary:	Growth factor that mediates its effects via EGFR, ERBB2 and ERBB4. Required for normal cardiac valve formation and normal heart function. Promotes smooth muscle cell proliferation. May be involved in macrophage-mediated cellular proliferation. It is mitogenic for fibroblasts, but not endothelial cells. It is able to bind EGF receptor/EGFR with higher affinity than EGF itself and is a far more potent mitogen for smooth muscle cells than EGF. Also acts as a diphtheria toxin receptor.[UniProtKB/Swiss-Prot Function]

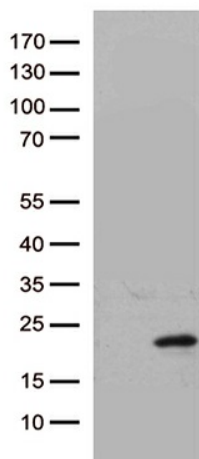
Product images:



Circular map for RC207688



Western blot validation of overexpression lysate (Cat# [LY400718]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207688 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HBEGF (Cat# RC207688, 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-HBEGF (Cat# [TA812468])(1:2000). Positive lysates [LY400718] (100ug) and [LC400718] (20ug) can be purchased separately from OriGene.