

Product datasheet for RC220534

POLR3H (NM_138338) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: POLR3H (NM_138338) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: POLR3H
Synonyms: C25; RPC8; RPC22.9
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC220534 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTCGTCTGGTGGAAATGGTGGACACCGTCCGGATCCCCCTTGGCAGTTTGAGAGGAAGCTCAACG
ACTCCATTGCCGAGGAGCTGAACAAGAAGTTGGCCAACAAGGTCGTGTACAACGTGGGACTCTGCATTTG
TCTGTTTGATATCACAACTGGAGGATGCCTATGTATTCCTGGGGATGGCGCATCACACCAAAGTC
CATTTTCGCTGCGTGGTGTTCATCCATTCCTAGATGAGATTCTCATTGGGAAGATCAAAGGCTGCAGCC
CAGAAGGAGTGCACGTCTCTTAGGCTTCTCGATGACATTCTCATCCCCCAGAGTCACTGCAGCAGCC
AGCCAAGTTCGACGAAGCGGAGCAGGTGTGGGTGTGGGAGTACGAGACGGAGGAAGGAGCACACGACCTC
TACATGGACACCGCGAGGAGATCCGCTTCCGGTGGTGGACGAGAGCTTTGTTGACACGTCACCCACAG
GGCCAGCTCAGCAGATGCCACCACTTCCAGTGAGGAGCTGCCAAAGAAGGAGGCTCCGTACACGCTTGT
GGGATCCATCAGTGAGCCAGGCTGGGCCTTCTCTCTGGTGGACCAGCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220534 protein sequence
Red=Cloning site Green=Tags(s)

MFVLVEMVDTVRIPPWQFERKLNDISIAEELNKKLANKVVVNVGLCICLFDITKLEDAYVFPDGDASHTKV
HFRCVVFHPFLDEILIGIKGCSPEGVHVS LGFFDDILIPPELQQPAKFDEAEQVWWEYETEEGAHDL
YMDTGEEIRFRVDESFDVTSPTGPSSADATTSSEELPKKEAPYTLVGSISEPGLGLLSWWTSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

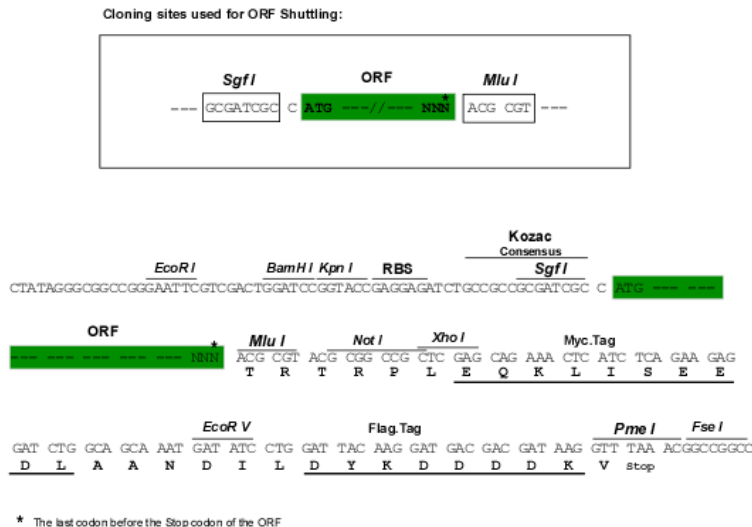


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Chromatograms: https://cdn.origene.com/chromatograms/mk6367_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_138338

ORF Size: 612 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.

RefSeq: [NM_138338.4](#)

RefSeq Size: 4186 bp

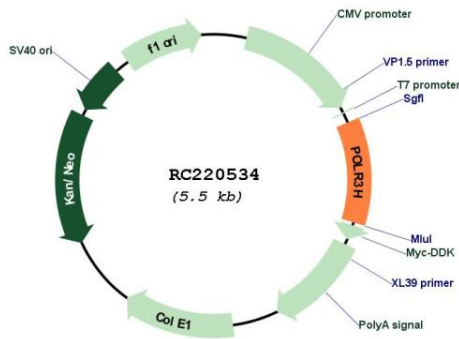
RefSeq ORF: 615 bp

Locus ID: 171568

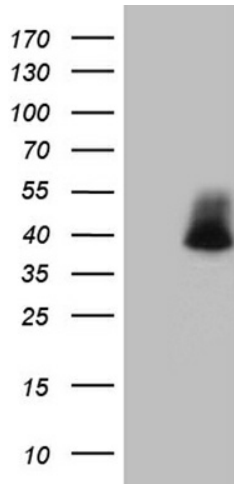
UniProt ID: [Q9Y535](#)
Cytogenetics: 22q13.2
Domains: RNA_pol_Rpb7_N
Protein Families: Transcription Factors
Protein Pathways: Cytosolic DNA-sensing pathway, Metabolic pathways, Purine metabolism, Pyrimidine metabolism, RNA polymerase
MW: 22.9 kDa

Gene Summary: DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Specific peripheric component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. Plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. Acts as nuclear and cytosolic DNA sensor involved in innate immune response. Can sense non-self dsDNA that serves as template for transcription into dsRNA. The non-self RNA polymerase III transcripts, such as Epstein-Barr virus-encoded RNAs (EBERs) induce type I interferon and NF- Kappa-B through the RIG-I pathway (By similarity).[UniProtKB/Swiss-Prot Function]

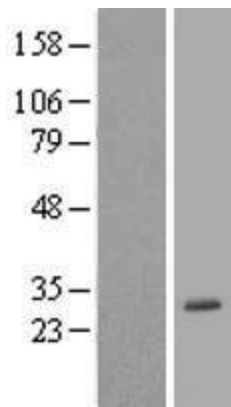
Product images:



Circular map for RC220534



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY POLR3H (Cat# RC220534, 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-POLR3H (Cat# [TA809432])(1:2000). Positive lysates [LY408616] (100ug) and [LC408616] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY408616]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220534 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).