

## Product datasheet for **RC224461**

### DERA (NM\_015954) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DERA (NM_015954) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DERA
Synonyms:	CGI-26; DEOC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224461 representing NM_015954 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCGCGCACAATCGGGGCACCGAGCTCGACCTTAGCTGGATCTCCAAAATACAAGTGAATCACCCGG  
CAGTTCTGAGGCGTGCAGAACAAATCCAGGCTCGCAGAACCGTAAAAAGGAGTGGCAGGCTGCTTGGCT  
CCTGAAAGCTGTTACCTTTATAGATCTTACTACACTTTCAGGTGATGATACATCTTCCAACATTCAAAGG  
CTCTGTTATAAAGCCAAATACCCAATCCGGAAGATCTCTTAAAAGCTTTAAATATGCATGATAAAGGCA  
TTACTACAGCCGCGTTTGTGTTTATCCCGCCCGGTGTGTGATGCTGTAAAAGCACTCAAGGCTGCAGG  
CTGTAATATCCCTGTGGCATCAGTGGCCGCTGGATTTCCAGCTGGACAGACTCATTGAAGACACGATTA  
GAAGAGATCAGATTGGCTGTGGAAGATGGAGCTACAGAAATCGACGTGGTAATTAAACAGAAGCTTGGTGC  
TGACAGGCCAGTGGGAAGCCCTGTATGATGAGATTCGTCAGTTTCGCAAGGCCTGTGGGGAGGCTCATCT  
TAAAACATATATTAGCGACAGGAGAACTTGGAACTTACTAATGTCTATAAAGCCAGTATGATAGCAATG  
ATGGCAGGATCAGATTTTATAAGACCTCTACTGGAAAAGAAACAGTAAATGCCACCTTCCCGGTAGCTA  
TAGTAATGCTGCGGGCCATTAGAGATTTCTTCTGGAAAAGTGGAAACAAGATAGGGTTTAAACCAGCAGG  
AGGCATCCGACGTGCAAAGGATTCCTTGGCTCTCTCTTGTAAAGGAGGAGCTTGGAGATGAGTGG  
CTGAAGCCAGAAGCTTTTCGAATAGGTGCCAGTACTCTGCTCTCGGACATTGAGAGGCAGATTTACCATC  
ATGTGACTGGAAGATATGCAGCTTATCATGATCTTCCAATGTCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC224461 representing NM\_015954  
Red=Cloning site Green=Tags(s)

MSAHRNGTELDLSWISKIQVNHPAVLRRAEQIQARRTVKKEWQAAWLLKAVTFIDLTTLSGDDTSSNIQR  
 LCYKAKYPIREDLLKALNMHDKGITTAAVCVYPARVCDAVKALKAAGCNIPVASVAAGFPAGQTHLKTRL  
 EEIRLAVEDGATEIDVVINRSLVLTGQWEALYDEIRQFRKACGEAHLKITLATGELGTLTNVYKASMIAM  
 MAGSDFIKTSTGKETVNATFPVAIVMLRAIRDFFWKGTGNKIGFKPAGGIRSAKDSLAWLSLVKEELGDEW  
 LKPELFRIGASTLLSDIERQIYHHVTGRYAAYHDLPMSS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8043\\_e06.zip](https://cdn.origene.com/chromatograms/mk8043_e06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_015954

**ORF Size:** 954 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\\_015954.4](#)

**RefSeq Size:** 1561 bp

**RefSeq ORF:** 957 bp

**Locus ID:** 51071

**UniProt ID:** [Q9Y315](#)

**Cytogenetics:** 12p12.3

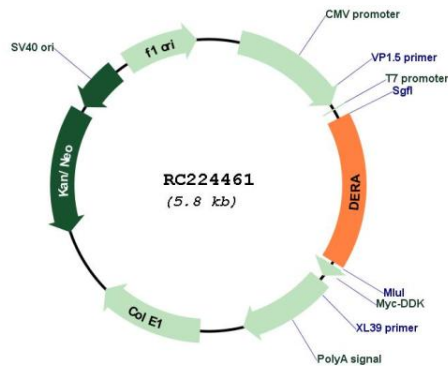
**Protein Families:** Druggable Genome

**Protein Pathways:** Pentose phosphate pathway

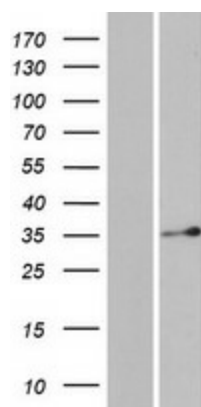
**MW:** 35.1 kDa

**Gene Summary:** Catalyzes a reversible aldol reaction between acetaldehyde and D-glyceraldehyde 3-phosphate to generate 2-deoxy-D-ribose 5-phosphate. Participates in stress granule (SG) assembly. May allow ATP production from extracellular deoxyinosine in conditions of energy deprivation.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC224461



Western blot validation of overexpression lysate (Cat# [LY414306]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224461 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).