

## Product datasheet for **RC224669**

### DEF8 (NM\_207514) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DEF8 (NM_207514) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DEF8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC224669 representing NM\_207514  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCATCTGTCCCTGCGAGCCCTGGGCCCTGGCAGGCGATGCAGGTATGGGCAGACAGGACGCTGT  
 TGACTCCGCACACCGCGTGACTTCTCAGTTCTCGGGTGGCAGCTGCAGTGATGACACCGCTTCTCGG  
 TGGTACGCCCGCGGAGCAGCGCGGAGGCCAGGTGGGATGCTATGGAATATGATGAGAAGCTGGCCGT  
 TTCCGGCAGGCCACCTCAACCCCTTCAACAAGCAGTCTGGGCCGAGACAGCATGAGCAGGGCCCTGGGG  
 AGGAGGTCCCGGACGTCCTCTGAAGAGGCCCTGCCTGAGCTGCCCCCTGGGGAGCCGGAATCCGCTG  
 CCCTGAACGCGTGATGGATCTCGGCCTGTCTGAGGACCACTTCTCCGCCCTGTGGGTCTGTTCTGGCC  
 TCTGACGTCCAGCAGCTGCGGCAGGCGATCGAGGAGTGAAGCAGGTGATTCTGGAGCTGCCGAGCAGT  
 CGGAGAAGCAGAAGGATGCCGTGGTGCAGTCTCCACCTCCGGTGAAGCTCCAGGAGCTGAAGGACCC  
 CAATGAGGATGAGCCAAACATCCGAGTGTCTTCTGAGCAGCGCTTTTACAAGGAGAAGAGCAAGAGCGTC  
 AAGCAGACCTGTGACAAGTGAACACCATCTGGGGGCTCATTAGACCTGGTACACCTGCACAGGGT  
 GTTATTACCGCTGTACAGTAAGTGCTTGAACCTCATCTCCAAGCCCTGTGTGAGCTCCAAGTACGCCA  
 CCAAGCTGAATACGAACCTGAACATCTGCCTGAGACAGGGCTGGACAGCCAGGATTACCGCTGTGCCGAG  
 TGCCGGGCGCCATCTCTCTGCGGGGTGTGCCAGTGAGGCCAGGCGAGTGCAGTACACCGGCCAGTACT  
 ACTGCAGCCACTGCCACTGGAACGACCTGGCTGTGATCCCTGCACGCGTTGTACACAAGTGGGACTTTGA  
 GCCTCGAAAGGTTTCTCGCTGCAGCATGCGCTACCTGGCGCTGATGGTGTCTCGGCCCGTACTCAGGCTC  
 CGGGAGATCAACCCTCTGCTGTTTCAGTACGTGGAGGAGCTGGTGGAGATTGCAAGCTGCGCCAGGACA  
 TCTGTCTCATGAAGCCGTAATTCATCACCTGCAGGGAGGCCATGGAGGCTCGTCTGCTGCAGCTCCA  
 GGATCGGCAGCATTTTGTGGAGAACGACGAGATGTAAGTCTGTCCAGGACCTCTGGACGTGCATGCCGCG  
 CGCCTGGGCTGCTCGCTACCGAGATCCACAGCTCTTCCGCAAGCACATCAAGCTGGACTGCGAGCGGT  
 GCCAGGCCAAGGGCTTCTGTGTGAGCTCTGCAGAGAGGGCGACGTGCTGTTCCCGTTCCAGCAGCCACAC  
 GTCTGTGTGCGCCGACTGCTCCGCGGTCTTCCACAGGACTGCTACTACGACAACCTCCACCCTGTCCC  
 AAGTGTGCCCGGCTCAGCCTGAGGAAGCAGTGCCTTCCAGGAGCCAGGTCCCAGTGTGGAGGCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC224669 representing NM\_207514  
 Red=Cloning site Green=Tags(s)

MAILSLRAPGPWQAMQVWADRLLTPHTGVTSQVLGVAAAVMTPLPGGHAAGRTREARWDAMEYDEKLAR  
 FRQAHLNPFNKQSGPRQHEQGPGEVDPVTPPEALPELPPGEPEFRCPERVMDLGLSEDFSRPVGLFLA  
 SDVQQLRQAIEECKQVILELPEQSEKQKDAVRLIHLRLKLQELKDPNEDEPNIRVLLHRFYKEKSKSV  
 KQTCDKCNTIIWGLIQTYWTCTGCYYRCHSKCLNLIISKPCVSSKVS HQAEYELNICPETGLDSQDYRCAE  
 CRAPISLRGVPSEARQCDYTGQYYCSHCHWNDLAVIPARVVHNWDFEPRKVSRCMRYLALMVSRPVRLR  
 REINPLLFYSYVEELVEIRKLRQDILLMKPYFITCREAMEARLLLQLQDRQHFVENDEMYSVQDLLDVHAG  
 RLGCSLTEIHTLFAKHILDCERCQAKGFVCELCREGDVLPFPDSHTSVCADCSAVFHRDCYYDNSTTCP  
 KCARLSLRKQSLFQEPGPDVEA

**SGP**TRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6187\\_b10.zip](https://cdn.origene.com/chromatograms/mk6187_b10.zip)

**Restriction Sites:**

SgfI-RsrII

**Cloning Scheme:**


**ACCN:** NM\_207514

**ORF Size:** 1536 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\\_207514.1](#), [NP\\_997397.1](#)

**RefSeq Size:** 3724 bp

**RefSeq ORF:** 1539 bp

**Locus ID:** 54849

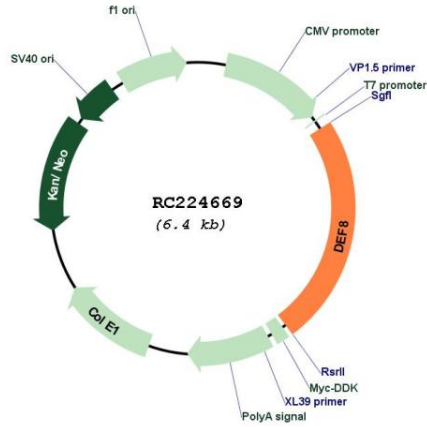
**UniProt ID:** [Q6ZN54](#)

**Cytogenetics:** 16q24.3

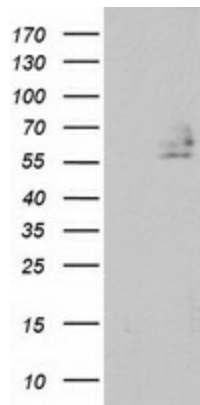
**MW:** 58.5 kDa

**Gene Summary:** Positively regulates lysosome peripheral distribution and ruffled border formation in osteoclasts. Involved in bone resorption.[UniProtKB/Swiss-Prot Function]

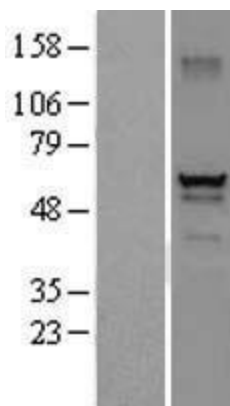
**Product images:**



Circular map for RC224669



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DEF8 (Cat# RC224669, 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-DEF8(Cat# [TA502669]). Positive lysates [LY403723] (100ug) and [LC403723] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403723]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224669 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).