

## Product datasheet for **RC208491**

### HE4 (WFDC2) (NM\_006103) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** HE4 (WFDC2) (NM\_006103) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** HE4  
**Synonyms:** dj461P17.6; EDDM4; HE4; WAP5  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC208491 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCTGCTTGTGCGCTAGGCCCGCTAGCCGCCCTCCTCCTCAGCCTGCTGCTGTTCCGGTTACCC  
 TAGTCTCAGGCACAGGAGCAGAGAAGACTGGCGTGTGCCCGAGCTCCAGGCTGACCAGAAGTGCACGCA  
 AGAGTGCCTCTCGACAGCGAATGCGCCGACAACCTCAAGTGTGCAGCGCGGGCTGTGCCACCTTCTGC  
 TCTCTGCCAATGATAAGGAGGGTTCTGCCCCAGGTGAACATTAACCTTCCCCAGCTCGGCCCTCTGTC  
 GGGACCAGTGCCAGGTGGACAGCCAGTGTCTGGCCAGATGAAATGCTGCCCAATGGCTGTGGGAAGGT  
 GTCTGTGCTCACTCCAATTTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC208491 protein sequence  
 Red=Cloning site Green=Tags(s)  
 MPACRLGPLAAALLLSLLLFGLTLVSGTGAETGVCPQLQADQNCTQECVSDSECADNLKCCSAGCATFC  
 SLPNDKEGSCPQVINFPQLGLCRDQCQVDSQCPGQMKCCRNCGKVCVTPNF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6091\\_d06.zip](https://cdn.origene.com/chromatograms/mk6091_d06.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_006103

**ORF Size:** 372 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\\_006103.4](#)

**RefSeq Size:** 570 bp

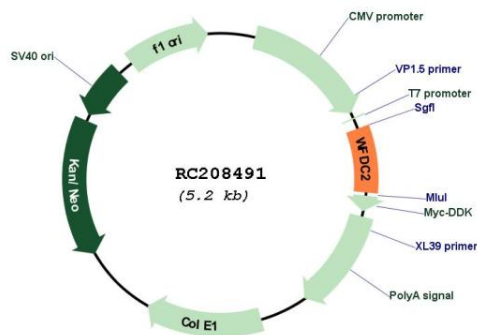
**RefSeq ORF:** 375 bp

**Locus ID:** 10406  
**UniProt ID:** [Q14508](#)  
**Cytogenetics:** 20q13.12

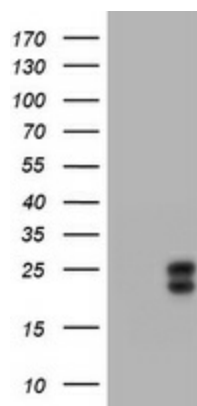
**Domains:** WAP  
**Protein Families:** Secreted Protein, Transmembrane  
**MW:** 13 kDa

**Gene Summary:** This gene encodes a protein that is a member of the WFDC domain family. The WFDC domain, or WAP Signature motif, contains eight cysteines forming four disulfide bonds at the core of the protein, and functions as a protease inhibitor in many family members. This gene is expressed in pulmonary epithelial cells, and was also found to be expressed in some ovarian cancers. The encoded protein is a small secretory protein, which may be involved in sperm maturation. [provided by RefSeq, Jul 2008]

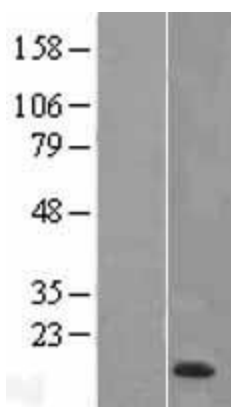
### Product images:



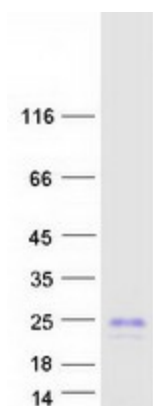
Circular map for RC208491



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY WFDC2 (Cat# RC208491, 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-WFDC2 (Cat# [TA801136]). Positive lysates [LY416866] (100ug) and [LC416866] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416866]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208491 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified WFDC2 protein (Cat# [TP308491]). The protein was produced from HEK293T cells transfected with WFDC2 cDNA clone (Cat# RC208491) using MegaTran 2.0 (Cat# [TT210002]).