

## Product datasheet for **RC202338**

### Profilin 1 (PFN1) (NM\_005022) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Profilin 1 (PFN1) (NM\_005022) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Profilin 1  
**Synonyms:** ALS18  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC202338 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCGGGTGGAACGCCTACATCGACAACCTCATGGCGGACGGGACCTGTCAGGACGGGCCATCGTGG  
 GCTACAAGGACTCGCCCTCCGTCTGGGCCGCCGTCCCCGGGAAAACGTTTCGTCAACATCACGCCAGCTGA  
 GGTGGGTGTCCTGGTTGGCAAAGACCGGTCAAGTTTTTACGTGAATGGGCTGACACTTGGGGCCAGAAA  
 TGTTCCGGTATCCGGGACTCACTGCTGCAGGATGGGAAATTTAGCATGGATCTTCGTACCAAGAGCACCG  
 GTGGGGCCCCACCTTCAATGTCACTGTCACCAAGACTGACAAGACGCTAGTCCTGCTGATGGGCAAAGA  
 AGGTGTCCACGGTGGTTTATGAAATGGCCTCCACCTTCGGCGTTCACAGTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC202338 protein sequence  
 Red=Cloning site Green=Tags(s)

MAGWNAYIDNLMADGTCQDAAIIVGYKDSPSVWAAVPGKTFVNIPTAEVGVLVGKDRSSFYVNGLTLGGQK  
 CSVIRDSLLQDGEFSMDLRKSTGGAPTFNVTVTDKTLVLLMGKEGVHGGGLINKKCYEMASHLRRSQY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6213\\_f09.zip](https://cdn.origene.com/chromatograms/mk6213_f09.zip)

**Restriction Sites:** SgfI-MluI



[View online »](#)

**Cloning Scheme:**


**ACCN:** NM\_005022

**ORF Size:** 420 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\\_005022.4](#)

**RefSeq Size:** 1365 bp

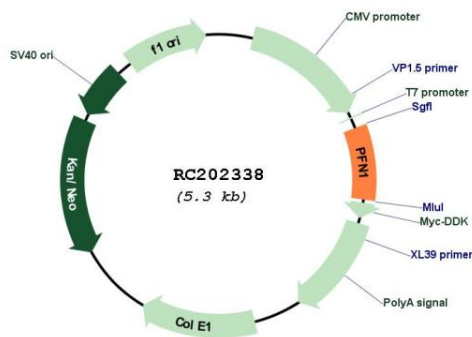
**RefSeq ORF:** 423 bp

**Locus ID:** 5216  
**UniProt ID:** [P07737](#)  
**Cytogenetics:** 17p13.2

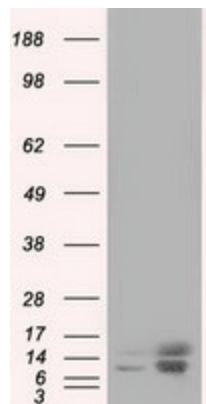
**Domains:** PROF  
**Protein Families:** Druggable Genome, Stem cell - Pluripotency  
**Protein Pathways:** Regulation of actin cytoskeleton  
**MW:** 15.1 kDa

**Gene Summary:** This gene encodes a member of the profilin family of small actin-binding proteins. The encoded protein plays an important role in actin dynamics by regulating actin polymerization in response to extracellular signals. Deletion of this gene is associated with Miller-Dieker syndrome, and the encoded protein may also play a role in Huntington disease. Multiple pseudogenes of this gene are located on chromosome 1. [provided by RefSeq, Jul 2012]

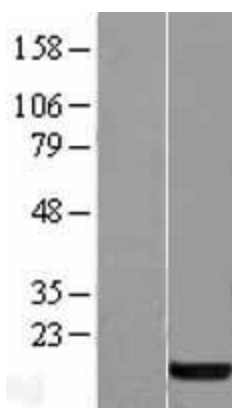
### Product images:



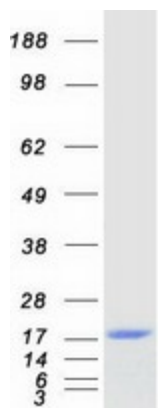
Circular map for RC202338



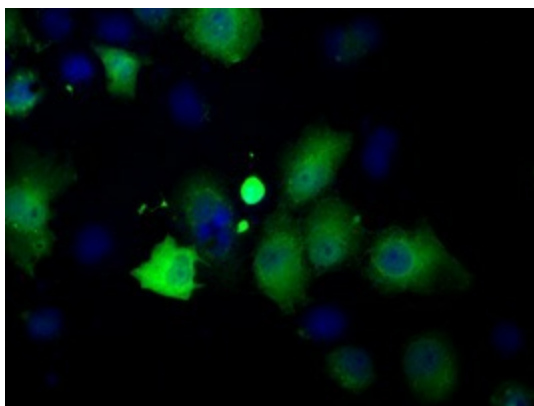
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PFN1 (Cat# RC202338, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PFN1 (Cat# [TA501211]). Positive lysates [LY417584] (100ug) and [LC417584] (20ug) can be purchased separately from OriGene.



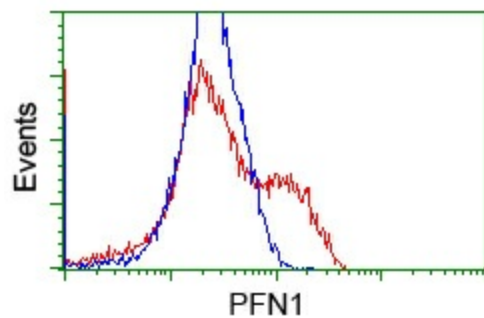
Western blot validation of overexpression lysate (Cat# [LY417584]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202338 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PFN1 protein (Cat# [TP302338]). The protein was produced from HEK293T cells transfected with PFN1 cDNA clone (Cat# RC202338) using MegaTran 2.0 (Cat# [TT210002]).



Anti-PFN1 mouse monoclonal antibody ([TA501211]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PFN1 (RC202338).



HEK293T cells transfected with either RC202338 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-PFN1 antibody ([TA501211]), and then analyzed by flow cytometry.