

## Product datasheet for **MG224961**

### Espn (NM\_019585) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Espn (NM_019585) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Espn
Synonyms:	je
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG224961 representing NM_019585 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACCCCAGGGGCTCTAGGTGGGGGCCATATACCCAGCACCAAATCTTTCAACATGATGTCCCCAA  
CGGGTGATAACTCAGAGCTTCTGGCTGAGATAAAGGCGGGCAAGAGCCTGAAGCCGACACCGCAGAGCAA  
GGGGCTGACAACCGTGTCTCAGGCAGTGGGCAGCCAGCCTCCAGGTAGGCACTGGCCGAGTGCCCCGC  
CCGGGCTCCAGTGCTGCCAGTGCTCAGCCCTACTGCTTCTCCCGGCAGCCTGAGTCACCGCAGCCTC  
TGGTGTCACCTGCGCCATCTCGGACTCGGAGCCCCACCCGCCAGCCTCTGGGTCTCAGCCACTGCTCAA  
TGGCAGTGTGGTGCCGGCACCACCTGCCACCCCGGCACCTGGAGTCCATCTGGATGTGGAGGCCCTCATT  
CCCACTCTTGATGAGCAGGGCCGCCCCATCCCGGAGTGGAAGCGCCAGGTGATGGTCCGCAAGCTGCAGC  
AGAAGATGCAGGAGGAAGAGGAGCAGCGGAGGAAGGAGGAAGAGGAGGAGGCCCGGCTCGCCAGCCTGCC  
TGCCTGGAGACGAGACATTCTTCGGAAGAAGCTGGAGGAGGAGAGGGAGCAGAAGCGAAAAGAGGAGGAG  
CGGCAAAAGCTGGAGGAAATACAGAGGGCGAAAGAACAGTCGGAGAAGCTGCGGACACTAGGCTACGACG  
AAGCCAAGCTCGCGCCCTGGCAGCGACAGGTCATCTTGAAGAAGGGGGAGATCCCTAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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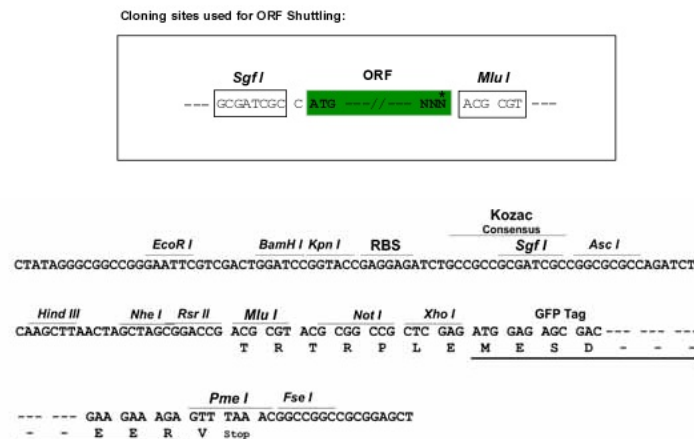
**Protein Sequence:** >MG224961 representing NM\_019585  
 Red=Cloning site Green=Tags(s)

MNSQGPLGGGHIPSTKSFNMMSPTGDNSELLAEIKAGKSLKPTPQSKGLTTVFSGSGQPASQVGTGRVPR  
 PGSQCLPSAQPYCFSRQPESQPLVSPAPSRTRSPTPPASGSQPLLNGSVVPAPPATPAPGVHLDVEALI  
 PTLDEQGRPIPEWKQVMVRKLQQKMQEEEEQRRKEEEEEARLASLPAWRRDILRKKLEEEEREQKRKEEE  
 RQKLEEIQRRAKEQSEKLRTLGYDEAKLAPWQRQVILKKGEIPK

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_019585

**ORF Size:** 759 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\\_019585.3](#), [NP\\_062531.2](#)

**RefSeq Size:** 1123 bp

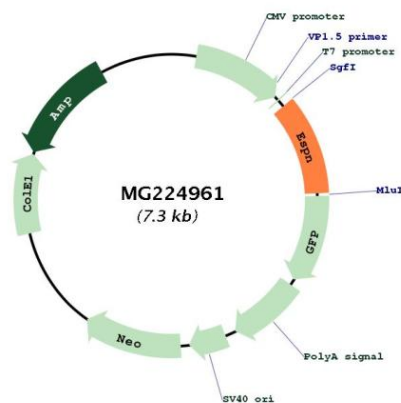
**RefSeq ORF:** 762 bp

**Locus ID:** 56226

**Cytogenetics:** 4 82.9 cM

**Gene Summary:** Multifunctional actin-bundling protein. Plays a major role in regulating the organization, dimension, dynamics and signaling capacities of the actin filament-rich microvilli in the mechanosensory and chemosensory cells (PubMed:14657236, PubMed:15190118). Required for the assembly and stabilization of the stereociliary parallel actin bundles. Plays a crucial role in the formation and maintenance of inner ear hair cell stereocilia (PubMed:21455486). Involved in the elongation of actin in stereocilia (PubMed:19287378, PubMed:22264607). In extrastricular hair cells, required for targeting MYO3B to stereocilia tips, and for regulation of stereocilia diameter and staircase formation (PubMed:26926603).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MG224961