

Product datasheet for **MG224951**

Espn (NM_207687) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Espn (NM_207687) 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)



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ORF Nucleotide Sequence:

>MG224951 representing NM_207687
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCTGGAGCAGGCGCTGCAGGCGGCACGGCGGGGCGACCTGGACGTGCTGAGTCCCTGCACGCCG
 CCGGCCTGCTGGGCCTTCTCTGCGGACTCGCTAGACGCCCTGCCGGTGCAACATGCGGCCCGCTCAGG
 CAAGCTGCACTGTCTGCGCTACTTGGTGGAGGAGTTGCCCTCCAGCCGTGTCCCGCGCGCAACGGC
 GCCACACCAGCCATGACGCGCCGCCACAGGCTACCTCTCTTGCTGCAGTGGTGCTCACACAGGGTG
 GCTGCAGGGTGCAGGAAAAAGATAACTCTGGTCCACAGTCTGCATCTGGCTGCCCGCTTTGGCCACCC
 GGATGTGGTGAAGTGGCTGCTGTACCAGGGCGGTGCAAATTCGGCCATCACACAGACACGGGCGCCCTG
 CCTATCCACTACGCTGCCGCCAAAGGAGACCTCCCCTCGTGAAGCTTCTGGTCGGGCATTACCCTGAGG
 GAGTGAATGCCAAACCAACAACGGTGCCACGCCCTGTACCTGGCGTCCAGGAGGGCCACCTGGAAGT
 GACGAAGTACCTTGTGCAGGAGTGCAGTGCAGATCCGCACCTGCGCGCCAAGACGGCATGACACCCCTA
 CATGCCGACGACAGATGGGCCACAACCCAGTCTTGGTGTGGCTGGTGGCTTTGCAGACGTTAGCTTTT
 CAGAGCAGGACCACGACGGCGCCACGGCCATGCACTTTGCTGCCAGTCCGGGCCACACCAAAGTGCTCAG
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 GAGAACGGGGAAGTGGAGTGTGCCAGATCCTCGCGGTGAACGGCGCTGGGCTGGACGTCGCGGACCACG
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 GCAAACCTGAGCTTGGAAACCCGAGTCTTGTCCCGGATCAATCCATGGACCTGGAGGCAAAGCAGCTG
 GACTCGGGTATGTCTCGCCAAACACCACCATGTCCGGTCCAGCCAATGACCTTTGACCTGGGCTGCCTA
 CTAGCAGTCTCCAATATGACTCCTGCTCCTCAGTCACTCCAGCAGCAAGGGGCGAGCATCGAATCG
 AGGGATTCCAGGTGCAAGAGCTGCAGACTTACAGAGCTACATGGACATGCTGAACCCAGAGAAGAGCTTG
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 CCCCACCACCCACAGGCACCCAGCCGCCCCACCTCCACCAGGCTACCCAGCTCCCAATCCCCCTGTGGG
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 GAGCCCAAGGTGGAGCTGAACGATCAGTTTGCACAGCCGAGCTCGGGCGACGGCCACTCGGGGCTACACA
 GGCAGGACTCCGGGCTGCTCAGGACGATTTCGGAGCTGCTGCACAGGCAGGAGTCTCAGGCACAGCAC
 CGGACTGCGCAGGACGACTCCGACCGCAAACAGCGCTCGTTCAGTAAACAGCCAGCACGGGGGACTAC
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 GCCGCCACCGCCCGCCGCGCTGCCGAGGCCCTGAGTTTCGCCGCGCCCGCCACCTCTGCCCATC
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 CCCCAGCCTCTGGTCTCAGCCACTGCTCAATGGCAGTGTGGTGCCGGCACCACCTGCCACCCCGGC
 ACCTGGAGTCCATCTGGATGTGGAGGCCCTCATTCCACTCTTGATGAGCAGGGCCCGCCATCCCGGAG
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 AGGAAGAGGAGGAGGCCGGCTGCCAGCCTGCCTGCCTGGAGACGAGACATTCTCGGAAGAAGCTGGA
 GGAGGAGAGGGAGCAGAAGCGAAAAGAGGAGGAGCGGAAAAGCTGGAGGAAATACAGAGGGCGAAAAGAA
 CAGTCGGAGAAGCTGCGGACACTAGGCTACGACGAAGCCAAGCTCGCGCCTGGCAGCGACAGGTATCT
 TGAAGAAGGGGAGATCCCTAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG224951 representing NM_207687
 Red=Cloning site Green=Tags(s)

MALEQALQAARRGDLVLRSLHAAGLLGPSLRDSDLALPVHHAARSGKLHCLRYLVEEVALPAVSRARNG
 ATPAHDAATGYLSCLQWLLTQGGCRVQEKDMSGATVHLAARFGHPDVVKWLLYQGGANSAITTDTGAL
 PIHYAAAKGDLPSLKLLVGHYPEGVNAQTNNGATPLYLACQEGHLEVTKYLVQECADPHLRAQDGMTPL
 HAAAQMGNHPVLVWLVSFADVSEQDHDGATAMHFAASRGHTKVLSWLLHGAESIQLWGGTPLHDAA
 ENGELECCQILAVNGAGLDVRDHDGYTAADLAEFNGHTHCSRYLRTVQTLSEHRVLSRDQSMLEAKQL
 DSGMSSPNTTMSVQPMFTDLGSPTSTFSNYDSCSSSHSSSKGQRSNRGIPGARAADLQSYMDMLNPEKSL
 PRGKLGKPSPPPPPPPPSPFPPTGTQPPPPPGYPAPNPPVGLHLNNIYMQTKNKLRHVEVDSLK
 EPKVELNDQFAQPSSGDGHSGLHRQDSELLHRQELLRHSTGLRRQSDRKRQSFQKQPSTGDY
 YRQLGRSPGEPLAARPGMAHSEEAALLPGNHVHNGCSADSKASRELPPPPPPPLPEALSSPPAPPLPI
 EGAGAACCQRRSSSTGKVRVLRHRKSTKSFNMSPTGDNSELLAEIKAGKSLKPTPQSKGLTTVSGSG
 QPASQPESQPLVSPAPSRTRSPTPPASGSQPLLNQSVVPAPPATPAPGVHLDVEALIPTLDEQGRPIPE
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 QSEKLRTLGYDEAKLAPWQRQVILKKGKIPK

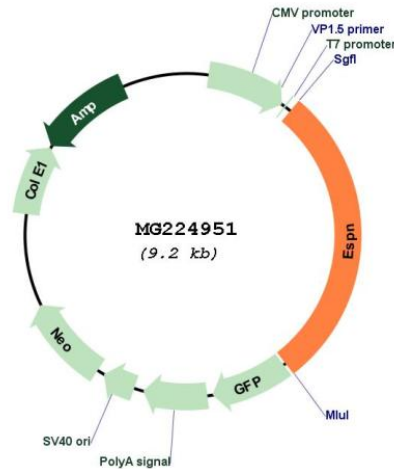
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_207687

ORF Size: 2613 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_207687.3](#)

RefSeq Size: 2861 bp

RefSeq ORF: 2616 bp

Locus ID: 56226

UniProt ID: [Q9ET47](#)

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]