

## Product datasheet for **RG214079**

### Zyxin (ZYG) (NM\_003461) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Zyxin (ZYG) (NM_003461) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Zyxin
Synonyms:	ESP-2; HED-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG214079 representing NM\_003461  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCCCGCCCGCTCCCGCGATCTCCGTTTCGGTCTCGGCTCCGGCTTTTACGCCCCGAGAG  
 AGAAGTTCGGCCCTGTGGTGGCCCCAAAGCCAAAGTGAATCCCTTCGGCCCGGGGACAGCGAGCCTCC  
 CCCGGCACCCGGGGCCAGCGCGACAGATGGCCGGGTGGGCGAGATCCCCCGCCGCCCGGAAGAC  
 TTTCCCTGCCTCCACCTCCCCTTGTGGGATGGCGACGATGCAGAGGGTCTCTGGGAGTGCCTTCC  
 CGCCGCCCTCCCGATCGAGGAATCATTTCCCTGCGCCTCTGGAGGAGGAGATCTTCCCTCCCC  
 GCCGCTCTCCGGAGGAGGAGGGAGGGCTGAGGCCCATACCGCCCCACCACAGCCAGGGAGAAG  
 GTGAGCAGTATTGATTTGGAGATCGACTCTGTCTCTACTGCTGGATGACATGACCAAGAATGATCCTT  
 TCAAAGCCGGGTGCATCTGGATATGTCCCCACCAGTGGCCACTCCATTGATTCAGTTCAGTCCAGTAC  
 CAAGCCTGCAGCCGGGGCACAGCACCCCTGCCTCCTTGAAGTCCCCTCCAGTCCCAGCCTCTGCC  
 CAGGTTCCGGCTCCGGCTCAGAGCCAGACAGTTCATGTTACGCCCCAGCCCCAGCCCAAGCCTCAGG  
 TCCAACCTCCATGTCCAGTCCCAGACCCAGCCTGTGTCTTTGGCTAACACCCAGCCCCGAGGGCCCCAGC  
 CTCATCTCCGGCTCCAGCCCCTAAGTTTCTCCAGTACTCCTAAGTTTACTCCTGTGGCTTCCAAGTTC  
 AGTCTGGAGCCCCAGGTGGATCTGGGTACAACCAAAATCAAAAATTTGGGACCCCCGAAGCTCTTTCTG  
 CTGGCACAGGCTCCCCTCAACCTCCCAGCTTCACTATGCCAGCAGAGGGAGAAGCCCCGAGTGCAGGA  
 GAAGCAGCACCCGTGCCCCACCGCTCAGAACCAAAACCAGGTGCGCTCCCCTGGGGCCCCAGGGCCC  
 CTGACTCTGAAGGAGGTGGAGGAGCTGGAGCAGCTGACCAGCAGCTAATGCAGGACATGGAGCATCCTC  
 AGAGCCAGAAATGGCTGTCAACGAACCTGCGGCCGATGCCATCAACCCCTGGCCCGGCGCAGCCAGC  
 CGTCCCGCTCTAGGGCAGCTGTTCCACATCGCCTGCTTCACTGCCACCAGTGTGCGCAGCAGCTCCAG  
 GGCCAGCAGTTCTACAGTCTGGAGGGGGCGCCGACTGCGAGGGCTGTTACACTGACACCCCTGGAGAAGT  
 GTAACACCTGCGGGGAGCCCATCACTGACCGCATGCTGAGGGCCACGGGCAAGGCCTATCACCCGACTG  
 CTTCACTGTGTGGTCTGCGCCCGCCCTGGAGGGCACCTCCTTCACTGTTGACCCAGGCCAACCGGCC  
 CACTGTGTCCCGACTACCACAAGCAGTACGCCCGAGGTGCTCCGTCTGCTCTGAGCCCATCATGCCTG  
 AGCCTGGCCGAGATGAGACTGTGCGAGTGGTGGCCCTGGACAAGAACTTCCACATGAAGTGTACAAGT  
 TGAGGACTGCGGGAAGCCCTGTCGATTGAGGCAGATGACAATGGCTGCTTCCCCTGGACGGTCAAGT  
 CTCTGTGGAAGTCCACACTGTAGAGCCAGACC

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG214079 representing NM\_003461  
 Red=Cloning site Green=Tags(s)

MAAPRPSAIVSVSAPAFYAPQKKFGPVVAPKPKVNPFRPGDSEPPPAPGAQRAQMGRVGEIPPPPPED  
 FPLPPPLAGDGDDEAGALGGAFPPPPPIEESFPAPLEEEIFPSPPPPEEGPEAPIPPPQPREK  
 VSSIDLEIDSLSSLLDDMTKNDPFKARVSSGYVPPPVATPFSSKSSTKPAAGGTAPLPPWKPSSSQPLP  
 QVPAPAQSQTQFHVQPQPQPKPVQLHVQSQTQPVSLANTQPRGPPASSPAPAPKFSVPTPKFTPVASKF  
 SPGAPGSGSQPNQKLGHPEALSAGTGSPPPSFTYAQQREKPRVQEKQHPVPPPAQNQNQVRSPPGAPG  
 LTLKEVEELEQLTQQLMQDMEHPQRQNVAVNELCGRCHQPLARAQPAVRALGQLFHIACFTCHQCAQQLQ  
 GQQFYSLGAPYCEGCYTDLEKNCNCGEPITDRMLRATGKAYHPHCFTCVVPCARPLEGTSFIVDQANRP  
 HCVDPDYHKQYAPRCSVCSEPIPEPGRDETVRVVALDKNFHMKCYKCEDCGKPLSIEADDNGCFPLDGHV  
 LCRKCHTARAQT

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_003461

**ORF Size:** 1716 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\\_003461.5](#)

**RefSeq Size:** 2325 bp

**RefSeq ORF:** 1719 bp

**Locus ID:** 7791

**UniProt ID:** [Q15942](#)

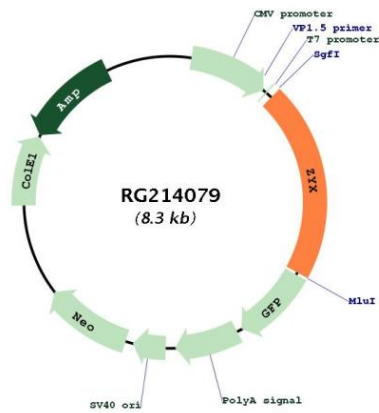
**Cytogenetics:** 7q34

**Domains:** LIM

**Protein Pathways:** Focal adhesion

**Gene Summary:** Focal adhesions are actin-rich structures that enable cells to adhere to the extracellular matrix and at which protein complexes involved in signal transduction assemble. Zyxin is a zinc-binding phosphoprotein that concentrates at focal adhesions and along the actin cytoskeleton. Zyxin has an N-terminal proline-rich domain and three LIM domains in its C-terminal half. The proline-rich domain may interact with SH3 domains of proteins involved in signal transduction pathways while the LIM domains are likely involved in protein-protein binding. Zyxin may function as a messenger in the signal transduction pathway that mediates adhesion-stimulated changes in gene expression and may modulate the cytoskeletal organization of actin bundles. Alternative splicing results in multiple transcript variants that encode the same isoform. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG214079