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Product datasheet for RC214079

Zyxin (ZYX) (NM_003461) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Zyxin (ZYX) (NM_003461) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Zyxin
Synonyms:	ESP-2; HED-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214079 representing NM_003461
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCCCCCCGCCCGTCTCCCGCGATCTCCGTTTCGGTCTCGGCTCCGGCTTTTTACGCCCCGCAGA
AGAAGTTCGGCCCTGTGGTGGCCCCAAAGCCCAAAGTGAATCCCTTCCGGCCCGGGGACAGCGAGCCTCC
CCCGGCACCCGGGGCCCAGCGCGCACAGATGGGCCGGGTGGGCGAGATTCCCCCGCCGCCCCCGGAAGAC
TTTCCCCTGCCTCCACCTCCCCTTGCTGGGGATGGCGACGATGCAGAGGGTGCTCTGGGAGGTGCCTTCC
CGCCGCCCCCTCCCCCGATCGAGGAATCATTTCCCCCTGCGCCTCTGGAGGAGGAGATCTTCCCTTCCCC
GCCGCCTCCTCCGGAGGAGGAGGGAGGGCCTGAGGCCCCCATACCGCCCCCACCACAGCCCAGGGAGAAG
GTGAGCAGTATTGATTTGGAGATCGACTCTCTGTCCTCACTGCTGGATGACATGACCAAGAATGATCCTT
TCAAAGCCCGGGTGTCATCTGGATATGTGCCCCCACCAGTGGCCACTCCATTCAGTTCCAAGTCCAGTAC
CAAGCCTGCAGCCGGGGGCACAGCACCCCTGCCTCCTTGGAAGTCCCCTTCCAGCTCCCAGCCTCTGCCC
CAGGTTCCGGCTCCGGCTCAGAGCCAGACACAGTTCCATGTTCAGCCCCAGCCCCAGCCCAAGCCTCAGG
TCCAACTCCATGTCCAGTCCCAGACCCAGCCTGTGTCTTTGGCTAACACCCAGCCCCGAGGGCCCCCAGC
CTCATCTCCGGCTCCAGCCCCTAAGTTTTCTCCAGTGACTCCTAAGTTTACTCCTGTGGCTTCCAAGTTC
AGTCCTGGAGCCCCAGGTGGATCTGGGTCACAACCAAATCAAAAATTGGGGCACCCCGAAGCTCTTTCTG
CTGGCACAGGCTCCCCTCAACCTCCCAGCTTCACCTATGCCCAGCAGAGGGAGAAGCCCCGAGTGCAGGA
GAAGCAGCACCCCGTGCCCCCACCGGCTCAGAACCAAAACCAGGTGCGCTCCCCTGGGGCCCCAGGGCCC
CTGACTCTGAAGGAGGTGGAGGAGCTGGAGCAGCTGACCCAGCAGCTAATGCAGGACATGGAGCATCCTC
AGAGGCAGAATGTGGCTGTCAACGAACTCTGCGGCCGATGCCATCAACCCCTGGCCCGGGCGCAGCCAGC
CGTCCGCGCTCTAGGGCAGCTGTTCCACATCGCCTGCTTCACCTGCCACCAGTGTGCGCAGCAGCTCCAG
GGCCAGCAGTTCTACAGTCTGGAGGGGGCGCCGTACTGCGAGGGCTGTTACACTGACACCCTGGAGAAGT
GTAACACCTGCGGGGAGCCCATCACTGACCGCATGCTGAGGGCCACGGGCAAGGCCTATCACCCGCACTG
CTTCACCTGTGTGGTCTGCGCCCGCCCCCTGGAGGGCACCTCCTTCATCGTGGACCAGGCCAACCGGCCC
CACTGTGTCCCCGACTACCACAAGCAGTACGCCCCGAGGTGCTCCGTCTGCTCTGAGCCCATCATGCCTG
AGCCTGGCCGAGATGAGACTGTGCGAGTGGTCGCCCTGGACAAGAACTTCCACATGAAGTGTTACAAGTG
TGAGGACTGCGGGAAGCCCCTGTCGATTGAGGCAGATGACAATGGCTGCTTCCCCCTGGACGGTCACGTG
CTCTGTCGGAAGTGCCACACTGCTAGAGCCCAGACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214079 representing NM_003461
Red=Cloning site Green=Tags(s)

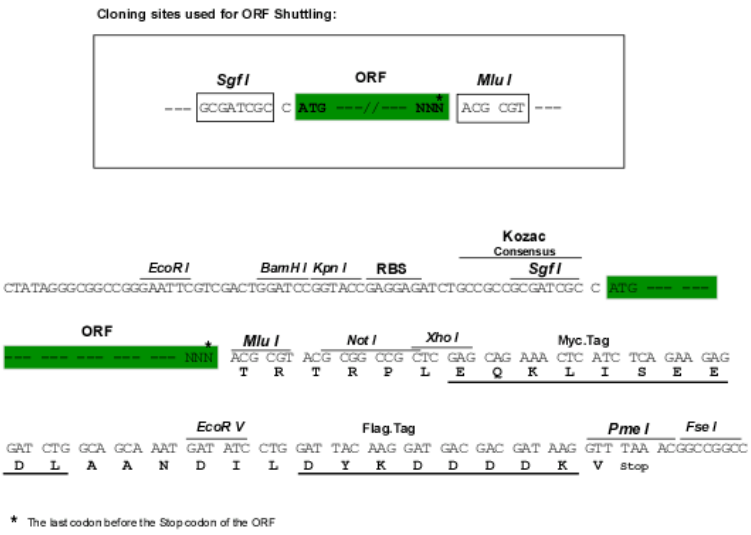
MAAPRPSPAISVSVSAPAFYAPQKKFGPVVAPKPKVNPFRPGDSEPPPAPGAQRAQMGRVGEIPPPPPED
FPLPPPPLAGDGDDAEGALGGAFPPPPPPIEESFPPAPLEEEIFPSPPPPPEEEGGPEAPIPPPPQPREK
VSSIDLEIDSLSSLLDDMTKNDPFKARVSSGYVPPPVATPFSSKSSTKPAAGGTAPLPPWKSPSSSQPLP
QVPAPAQSQTQFHVQPQPQPKPQVQLHVQSQTQPVSLANTQPRGPPASSPAPAPKFSPVTPKFTPVASKF
SPGAPGGSGSQPNQKLGHPEALSAGTGSPQPPSFTYAQQREKPRVQEKQHPVPPPAQNQNQVRSPGAPGP
LTLKEVEELEQLTQQLMQDMEHPQRQNVAVNELCGRCHQPLARAQPAVRALGQLFHIACFTCHQCAQQLQ
GQQFYSLEGAPYCEGCYTDTLEKCNTCGEPITDRMLRATGKAYHPHCFTCVVCARPLEGTSFIVDQANRP
HCVPDYHKQYAPRCSVCSEPIMPEPGRDETVRVVALDKNFHMKCYKCEDCGKPLSIEADDNGCFPLDGHV
LCRKCHTARAQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3790_f01.zip

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_003461.5

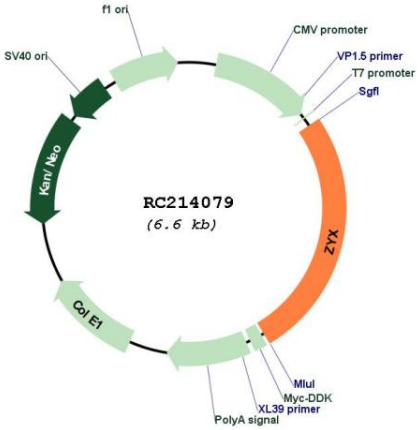
RefSeq Size: 2325 bp

RefSeq ORF: 1719 bp

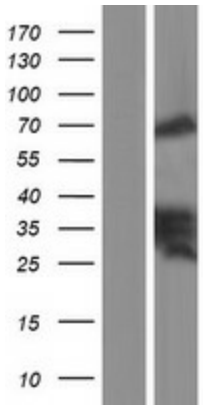
Locus ID: 7791

UniProt ID:	Q15942
Cytogenetics:	7q34
Domains:	LIM
Protein Pathways:	Focal adhesion
MW:	61.1 kDa
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]

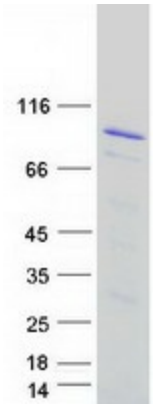
Product images:



Circular map for RC214079



Western blot validation of overexpression lysate (Cat# [LY418663]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214079 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ZYX protein (Cat# [TP314079]). The protein was produced from HEK293T cells transfected with ZYX cDNA clone (Cat# RC214079) using MegaTran 2.0 (Cat# [TT210002]).