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Product datasheet for RC402255

TIE2 (TEK) (NM_000459) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	TIE2 (TEK) (NM_000459) Human Mutant ORF Clone
Mutation Description:	Y897S
Affected Codon#:	897
Affected NT#:	2690
Nucleotide Mutation:	TEK Mutant (Y897S), Myc-DDK-tagged ORF clone of Homo sapiens TEK tyrosine kinase, endothelial (TEK) as transfection-ready DNA
Effect:	Venous malformation
Symbol:	TEK
Synonyms:	CD202B; GLC3E; TIE-2; TIE2; VMCM; VMCM1
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_000459
ORF Size:	3372 bp
Restriction Sites:	SgfI-MluI
ORF Nucleotide Sequence:	>RC402255 representing NM_000459 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGACTCTTTAGCCAGCTTAGTTCTCTGTGGAGTCAGCTTGCTCCTTTCTGGAACTGTGGAAGGTGCCA TGGACTTGATCTTGATCAATTCCCTACCTCTTGTATCTGATGCTGAAACATCTCTCACCTGCATTGCCTC TGGGTGGCGCCCCCATGAGCCCATCACCATAGGAAGGGACTTTGAAGCCTTAATGAACCAGCACCAGGAT CCGCTGGAAGTTACTCAAGATGTGACCAGAGAATGGGCTAAAAAAGTTGTTTGGAAGAGAGAAAAGGCTA GTAAGATCAATGGTGCTTATTTCTGTGAAGGGCGAGTTCGAGGAGAGGCAATCAGGATACGAACCATGAA GATGCGTCAACAAGCTTCCTTCCTACCAGCTACTTTAACTATGACTGTGGACAAGGGAGATAACGTGAAC ATATCTTTCAAAAAGGTATTGATTAAAGAAGAAGATGCAGTGATTTACAAAAATGGTTCCTTCATCCATT

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AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC402255 representing NM_000459
Red=Cloning site Green=Tags(s)

MDSLASLVLCGVSLLLSGTVEGAMDLILINSLPLVSDAETSLTCIASGWRPHEPITIGRDFEALMNQHQD
PLEVTQDVTREWAKKVVWKREKASKINGAYFCEGRVRGEAIRIRTMKMRQQASFLPATLTMTVDKGDNVN
ISFKKVLIKEEDAVIYKNGSFIHSVPRHEVPDILEVHLPHAQPQDAGVYSARYIGGNLFTSAFTRLIVRR
CEAQKWGPECNHLCTACMNNGVCHEDTGECICPPGFMGRTCEKACELHTFGRTCKERCSGQEGCKSYVFC
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KIVDLPDHIEVNSGKFNPICKASGWPLPTNEEMTLVKPDGTVLHPKDFNHTDHFSVAIFTIHRILPPDSG
VWVCSVNTVAGMVEKPFNISVKVLPKPLNAPNVIDTGHNFAVINISSEPYFGDGPIKSKKLLYKPVNHYE
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LTWQPIFPSSEDDFYVEVERRSVQKSDQQNIKVPGNLTSVLLNNLHPREQYVVRARVNTKAQGEWSEDLT
AWTLSDILPPQPENIKISNITHSSAVISWTILDGYSISSITIRYKVQGKNEDQHVDVKIKNATITQYQLK
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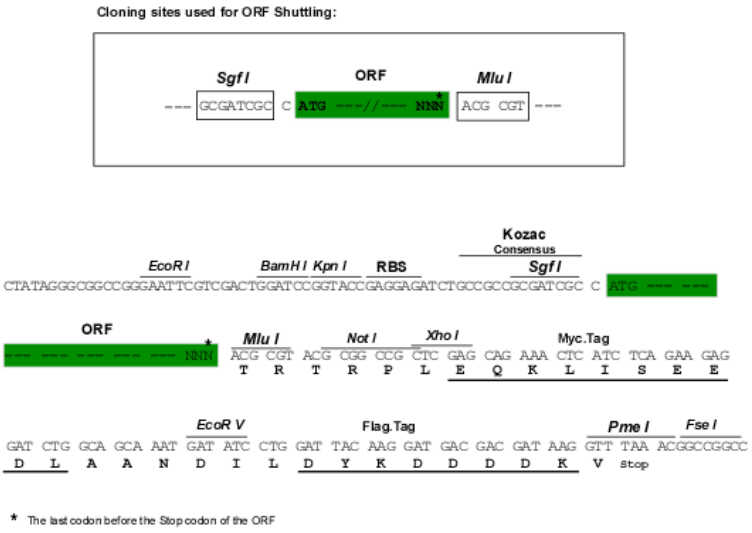
Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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).
RefSeq:	NP_000450
RefSeq Size:	3372 bp
RefSeq ORF:	3375 bp
Locus ID:	7010
Cytogenetics:	9p21.2
Domains:	pkinase, TyrKc, S_TKc, FN3, EGF, EGF
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane
MW:	123.6 kDa
Gene Summary:	This gene encodes a receptor that belongs to the protein tyrosine kinase Tie2 family. The encoded protein possesses a unique extracellular region that contains two immunoglobulin-like domains, three epidermal growth factor (EGF)-like domains and three fibronectin type III repeats. The ligand angiopoietin-1 binds to this receptor and mediates a signaling pathway that functions in embryonic vascular development. Mutations in this gene are associated with inherited venous malformations of the skin and mucous membranes. Alternative splicing results in multiple transcript variants. Additional alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Feb 2014]