OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC222981

TRAF4AF1 (KNSTRN) (NM_033286) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRAF4AF1 (KNSTRN) (NM_033286) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRAF4AF1
Synonyms:	C15orf23; HSD11; SKAP; TRAF4AF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

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>RC222981 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCTCCCGAAGCCCCGCCCCTGGACAGAGTTTTCCGTACAACATGGCTGTCTACAGAGTGCGATT
CCCACCCACTTCCGCCTAGCTACCGGAAGTTTCTATTTGAAACCCAGGAGGCCGACTTAGCCGGTGGCAC
GACAGTTGCTGCAGGGAATCTTTTAAACGAGAGCGAGAAGGACTGCGGGCAGGACCGGCGGGCTCCTGGG
GTTCAGCCGTGCCTCCTCGTTACGATGACCAGTGTGGTTAAGACAGTGTATAGCCTGCAGCCCTCCTCTG
CGCTGAGCGGCGGCCAGCCGGCAGACACACAAACTCGGGCCACTTCTAAGAGTCTCTTACCTGTTAGGTC
CAAAGAAGTCGATGTTTCCAAACAGCTTCATTCAGGAGGTCCAGAGAATGATGTTACAAAAATCACCAAA
CTGAGACGAGAGAATGGGCAAATGAAAGCTACTGACACTGCCACCAGAAGGAATGTCAGAAAAGGCTACA
AACCACTGAGTAAGCAAAAATCAGAGGAAGAGCTCAAGGACAAGAACCAGCTGTTAGAAGCCGTCAACAA
GCAGTTGCACCAGAAGTTGACTGAAACTCAGGGAGAGCTGAAGGACCTGACCCAGAAGGTAGAGCTGCTG
GAGAAGTTTCGGGACAACTGTTTGGCAATTTTGGAGAGCAAGGGCCTTGATCCAGCTTTAGGCGGTGAGA
CCCTGGCATCACGACAAGAATCCACTACTGATCACATGGACTCTATGTTGCTGTTAGAAACTTTGCAAGA
GGAGCTGAAGCTTTTTAACGAAACAGCCAAAAAGCAGATGGAGGAGTTACAGGCCTTAAAGGTAAAGCTG
GAGATGAAAGAGGAAAGAGTCCGATTCCTAGAACAGCAAACCTTATGTAACAATCAAGTAAATGATTTAA
CAACAGCCCTTAAGGAAATGGAGCAGCTATTAGAAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Protein Sequence:

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>RC222981 protein sequence
Red=Cloning site Green=Tags(s)

MAAPEAPPLDRVFRTTWLSTECDSHPLPPSYRKFLFETQEADLAGGTTVAAGNLLNESEKDCGQDRRAPG
VQPCLLVTMTSVVKTVYSLQPSSALSGGQPADTQTRATSKSLLPVRSKEVDVSKQLHSGGPENDVTKITK
LRRENGQMKATDTATRRNVRKGYKPLSKQKSEEELKDKNQLLEAVNKQLHQKLTETQGELKDLTQKVELL
EKFRDNCLAILESKGLDPALGGETLASRQESTTDHMDSMLLLETLQEELKLFNETAKKQMEELQALKVKL
EMKEERVRFLEQQTLCNNQVNDLTTALKEMEQLLEM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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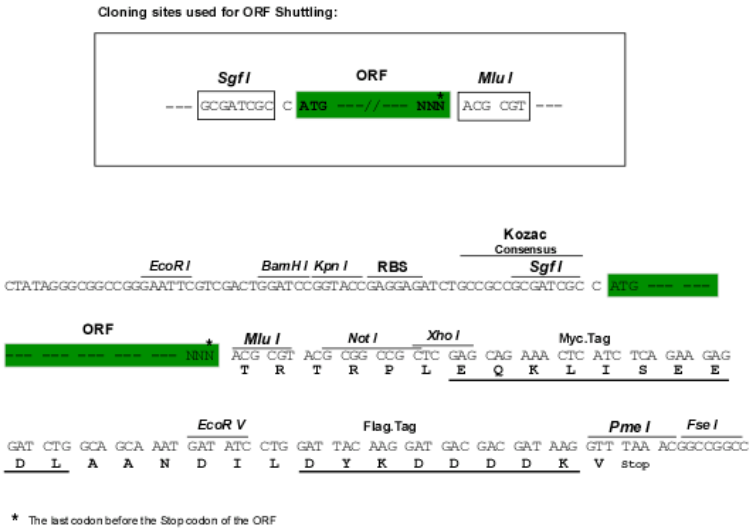
Chromatograms: https://cdn.origene.com/chromatograms/mk6444_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_033286

ORF Size: 948 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).

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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_033286.2, NP_150628.2
RefSeq Size:	1763 bp
RefSeq ORF:	951 bp
Locus ID:	90417
UniProt ID:	Q9Y448
Cytogenetics:	15q15.1
MW:	35.4 kDa
Gene Summary:	Essential component of the mitotic spindle required for faithful chromosome segregation and progression into anaphase (PubMed:19667759). Promotes the metaphase-to-anaphase transition and is required for chromosome alignment, normal timing of sister chromatid segregation, and maintenance of spindle pole architecture (PubMed:19667759, PubMed:22110139). The astrin (SPAG5)-kinastrin (SKAP) complex promotes stable microtubule-kinetochore attachments (PubMed:21402792). Required for kinetochore oscillations and dynamics of microtubule plus-ends during live cell mitosis, possibly by forming a link between spindle microtubule plus-ends and mitotic chromosomes to achieve faithful cell division (PubMed:23035123). May be involved in UV-induced apoptosis via its interaction with PRPF19; however, these results need additional evidences (PubMed:24718257).[UniProtKB/Swiss-Prot Function]

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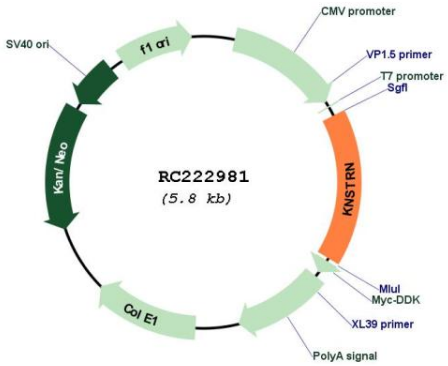
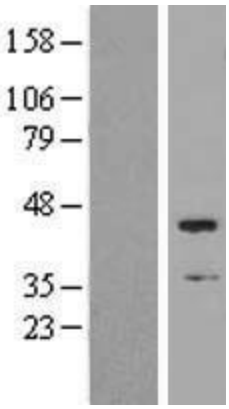
Product images:



Circular map for RC222981



Western blot validation of overexpression lysate (Cat# [LY409608]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222981 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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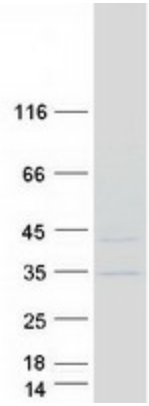

Coomassie blue staining of purified KNSTRN protein (Cat# [TP322981]). The protein was produced from HEK293T cells transfected with KNSTRN cDNA clone (Cat# RC222981) using MegaTran 2.0 (Cat# [TT210002]).

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