

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTCCCGAAGCCCCGCCCTGGACAGAGTTTTCCGTACAACATGGCTGTCTACAGAGTGCATT
CCCACCCACTCCGCCTAGCTACCGAAGTTTCTATTTGAAACCCAGGAGGCCGACTTAGCCGGTGGCAC
GACAGTTGCTGCAGGGAATCTTTAAACGAGAGCGAGAAGGACTGCGGGCAGGACCGCGGGCTCCTGGG
GTTGAGCCGTGCCTCCTCGTTACGATGACCAAGTGTGGTTAAGACAGTGTATAGCCTGCAGCCCTCCTCTG
CGCTGAGCGGGCGCCAGCCGGCAGACACAAACTCGGGCCACTTCTAAGAGTCTTTACCTGTTAGGTC
CAAAGAAGTCGATGTTTCCAAACAGTTCAATTCAGGAGGTCCAGAGAATGATGTTACAAAAATCACCAAA
CTGAGACGAGAGAATGGCAAAATGAAAGCTACTGACACTGCCACCAGAAGGAATGTCAGAAAAGGCTACA
AACCCTGAGTAAGCAAAAATCAGAGGAAGAGCTCAAGGACAAGAACCAGCTGTTAGAAGCCGTCACAA
GCAGTTGCACCAGAAGTTGACTGAAACTCAGGGAGAGCTGAAGGACCTGACCCAGAAGGTAGAGCTGCTG
GAGAAGTTTGGGACAACCTGTTGGCAATTTGGAGAGCAAGGGCCTTGATCCAGCTTTAGGCGGTGAGA
CCCTGGCATCACGACAAGAATCCACTACTGATCACATGGACTCTATGTTGCTGTTAGAACTTTGCAAGA
GGAGCTGAAGCTTTTTAACGAAACAGCCAAAAAGCAGATGGAGGAGTTACAGGCCTTAAAGGTAAGCTG
GAGATGAAAGAGGAAAGAGTCCGATTCTAGAACAGCAAACCTTATGTAACAATCAAGTAAATGATTTAA
CAACAGCCCTTAAGGAAATGGAGCAGCTATTAGAAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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

MAAPEAPPLDRVFRITWVLSSTECDSHPLPPSYRKFLFETQEADLAGGTTVAAGNLLNESEKDCGQDRRAPG
 VQPCLLVMTSVVKTVYSLQPSSALSGGQPADTQTRATSKSLLPVRSKEVDVSKQLHSGGPENDVTKITK
 LRRENGQMKATDTATRRNVRKGYKPLSKQKSEEELKDKNQLEAVNKQLHQKLTETQGELKDLTQKVELL
 EKFRDNCLAILESKGLDPALGGETLASRQESTTDHMDSMMLLLETLQEELKLFNETAKKQMEELQALKVKL
 EMKEERVRFLEQQTLCNNQVNDLTTALKEMEQLLEM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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).

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_033286.2](#), [NP_150628.2](#)

RefSeq Size: 1763 bp

RefSeq ORF: 951 bp

Locus ID: 90417

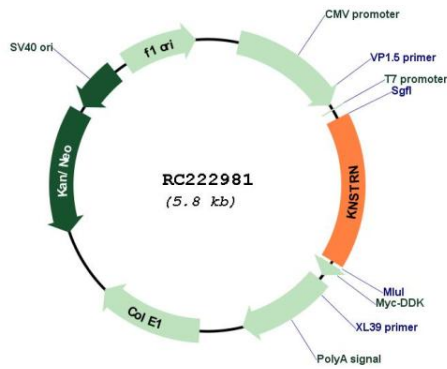
UniProt ID: [Q9Y448](#)

Cytogenetics: 15q15.1

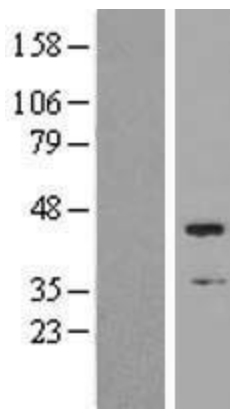
MW: 35.4 kDa

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]

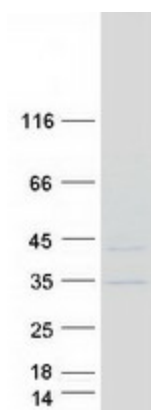
Product images:



Circular map for RC222981



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



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]).