

Product datasheet for RC217054

AF4 (AFF1) (NM_005935) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AF4 (AFF1) (NM_005935) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AF4
Synonyms:	AF4; MLLT2; PBM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217054 representing NM_005935 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCCCAGTCAAGTTTGTACAATGACGACAGAACTGCTTCTGAATTAGAGAGAAGGAAAGACGCA
ACCAGGAAGCCCACCAAGAGAAAGAGGCATTTCTGAAAAGATCCCTTTTTGGAGAGCCCTACAAGAC
AGCAAAAGGTGATGAGCTGTCTAGTCGAATACAGAACATGTTGGGAACTACGAAGAAGTGAAGGAGTTC
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CACTCCTGCGTCTGGACCACTTTCTGTTGGCAACATTAGCCACAATCCAAGATGGCGCAGCCAAGAAGT
GAACCAATGCCAAGTCTCCATGCCAAAAGCTGCGGCCACCGGACAGCCAGCACCTGACCCAGGATCGCC
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GCAATAACAGTAAAGGCTATTGCCAGCCAAATCTCCAAGGACCTAGCAGTGAAAGTCCATGATAAAGA
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GACAGCGAAGAAAATGAGCCCCTAGAAACCCAGCTCCGGAGCCTGAGCCTCCAACAACAAACAAATGGC
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ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >RC217054 representing NM_005935
 Red=Cloning site Green=Tags(s)

MAAQSSLYNDNRNLLRIREKERRNQEAHQEKEAFPEKIPLFGEPYKTAKGDESSRIQNMLGNYEEVKEF
 LSTKSHTHRLDASENRLGPKYPLIPDKGSSIPSSSFHTSVHHQSIHTPASGPLSVGNISHNPKMAQPR
 EPMPSLHAKSCGPPDSQHLTQDRLGQEGFGSSHHKKGDRRADGDHCAVTDASAPERELSPLISLPSVPP
 LSPIHNSQQTLPRTQGSSKVHGSSNNSKGYCPAKSPKDLAVKVHDKETPQDSLVAQAQPPSQTFPPPSLP
 SKSVAMQKPTAYVRPMDGQDQAPSESPCLKPLPEDYRQQTFEKTDLKVPAKAKLTKLKMPQSVEQTY
 NEVHCVEEILKEMTHSWPPPLTAIHTPSTAEPKFFPPTKDSQHVSSVTQNKQYDTSSKTHSNSQQGTS
 SMLEDDLQLSDSESDSEQTPEKPPSSSAPPAPQSLPEPVASAHSSSAESESTSDSDSSDSESESSSS
 DSEENELETPAPEPEPPTTNKWLNDNLTKVQSPAAPPEGPRSTEPHHPESKSSDSATSQEHSEK
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 FALVPLTESQGGPHSGSRTSGCRQAVVQEDSRKDRLLPLRDTKLLSPLRDTPPPQSLMVKITLDLL
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 SSSHKESKTKPSRPSSQSKKEMLPPPPVSSSQKPAKPAKRSRREADTCGQDPPKSASSTKSNHKDS
 SIPKQRRVEGKGRSSSEHKGSSGDTANFPVPSLPNGNSKPGKQVKFDKQADLHMREAKMKQKAE
 MTDVRGKAFKYLEAVLSFIECGIATESESQSSKSAYSVYSETVDLIKFIKSLKSFSDATPTQEKIFAVL
 CMRCQSILNMAMFRCKKDIKYSRTLKHFESSKVAQAPSPCIASGTGPSLSPMPSPASSVGSQSSA
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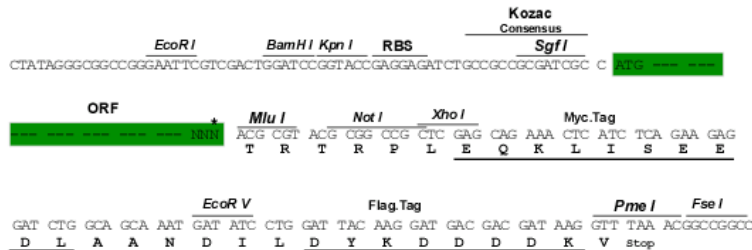
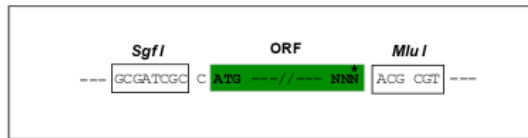
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



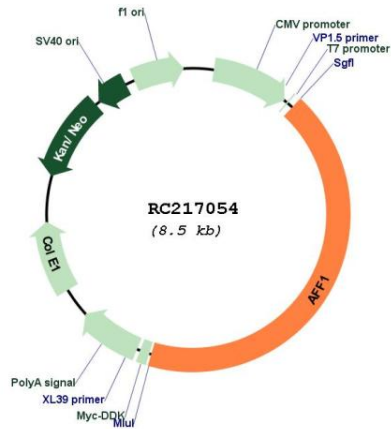
* The last codon before the Stop codon of the ORF

ACCN: NM_005935

ORF Size: 3630 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:	<ol style="list-style-type: none">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_005935.3
RefSeq Size:	9390 bp
RefSeq ORF:	3633 bp
Locus ID:	4299
UniProt ID:	P51825
Cytogenetics:	4q21.3-q22.1
Domains:	AF-4
Protein Families:	Transcription Factors
MW:	131.2 kDa
Gene Summary:	This gene encodes a member of the AF4/ lymphoid nuclear protein related to the Fragile X E syndrome (FRAXE) family of proteins, which have been implicated in human childhood lymphoblastic leukemia, fragile chromosome X intellectual disability, and ataxia. It is the prevalent mixed-lineage leukemia fusion gene associated with spontaneous acute lymphoblastic leukemia. Members of this family have three conserved domains: an N-terminal homology domain, an AF4/ lymphoid nuclear protein domain, and a C-terminal homology domain. The protein functions as a regulator of RNA polymerase II-mediated transcription through elongation and chromatin remodeling functions. Through RNA interference screens, this gene has been shown to promote the expression of CD133, a plasma membrane glycoprotein required for leukemia cell survival. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2017]

Product images:



Circular map for RC217054