

Product datasheet for RC210042

KLF2 (NM_016270) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLF2 (NM_016270) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KLF2
Synonyms:	LKLF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210042 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGAGTGAACCCATCCTGCCGTCTTCTCCACTTTCGCCAGCCCGTGCCGCGAGCGCGGCCTGC
AGGAGCGCTGGCCGCGCGCCGAACCCGAGTCCGGCGGCACCGACGACCTCAACAGCGTGTGGACTT
CATCCTGTCCATGGGGCTGGATGGCTGGGCGCCGAGGCCGCCCGGAGCCGCGCCGCCGCCCGCCCGCC
CCTGCGTTCTATTACCCGAACCCGGCGCGCCCCGCCCTACAGCGCCCCGCGGGTGGCCTGGTGTCTG
AGCTGCTGCGACCCGAGCTGGATGCGCCCGGGGCCCGCACTGCACGGCCGCTTCTGCTGGCGCCGCC
CGGCCGCTGGTCAAGGCCGAGCCCCGTAAGCGGACGGCGGCGCGGCTACGGCTGCGCCCCGGGCTG
ACCCGTGGACCCGCGGGCTCAAGCGGAGGGCGCCCCGGGCCCGGGCTTCGTGCATGCGAGGTCCCG
GGGGCCGCCCGCCGCGCCCGACACACCGCCGCTCAGCCCCGACGGCCCCGCGCGCCTGCCCGCGCC
CGGTCCGCGCGCCTCTTCCCGCCGCTTTCGGTGGCCCTGGTTTCGGCGCGCCCGGGCCCGGCCTGCAT
TACGCGCCGCTGCGCCCCAGCCTTCCGCTCTTCGACGACGCGCGCCGCGCGCGCAGCCCTGGGCC
TGGCGCCCCCGCCGCGGCTCTCTCACGCCGCTGCGTCCCGCTGGAGCTGCTGGAGGCCAAGCC
AAAGCGCGCCCGCCTTTGGCCCCGAAACGCCACCGCCACTCACACCTGCAGCTACCGGGCTGCGGC
AAGACCTACACCAAGAGTTCGCATCTGAAGCGCATCTGCGCACACAGGTGAGAAGCCCTACCACT
GCAACTGGGACGGCTGCGGCTGGAAGTTTGGCGCTCAGACGAGCTCACGCGCCACTACCGAAAGCACAC
GGGCCACCGCCATTCCAGTGCCATCTGTGCGATCGTGCTTCTCGCGCTCCGATCACCTGGCGCTGCAC
ATGAAACGGCACATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC210042 protein sequence
Red=Cloning site Green=Tags(s)

MALSEPILPSFSTFASPCRERGLQERWPRAEPESGGTDDDLNSVLDLILSMGLDGLGAEAAPEPPPPPPP
 PAFYYPEPGAPPYSAPAGGLVSELLRPELDAPPGPALHGRFLLAPPGRVLKAEPPPEADGGGGYGCAPGL
 TRGPRGLKREGAPGPAASCMRGPGRPPPPDTPPLSPDGPAPLPAPGPRASFPPFPGGPGFAGPGLH
 YAPPAPPAFLFDDAAAAAALGLAPPAARGLLTPPASPLELLEAKPKRGRRSWPRKRTATHTCSYAGCG
 KTYTKSSHLKAHLRTHTEKPYHCNWDGCGWKFARSDELTRHYRKHTGHRPFQCHLCDRAFSRSDHLALH
 MKRHM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6272_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_016270

ORF Size: 1065 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_016270.4](#)

RefSeq Size: 1655 bp

RefSeq ORF: 1068 bp

Locus ID: 10365

UniProt ID: [Q9Y5W3](#)

Cytogenetics: 19p13.11

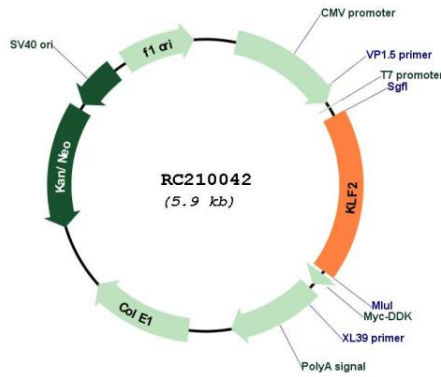
Domains: zf-C2H2

Protein Families: Transcription Factors

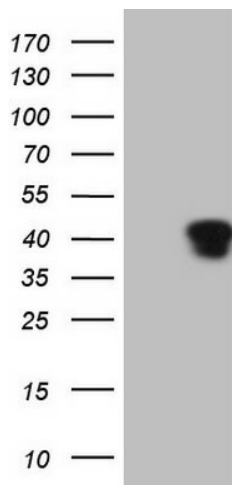
MW: 37.4 kDa

Gene Summary: This gene encodes a protein that belongs to the Kruppel family of transcription factors. The encoded zinc finger protein is expressed early in mammalian development and is found in many different cell types. The protein acts to bind the CACCC box found in the promoter of target genes to activate their transcription. It plays a role in many processes during development and disease including adipogenesis, embryonic erythropoiesis, epithelial integrity, inflammation and t-cell viability. [provided by RefSeq, Mar 2017]

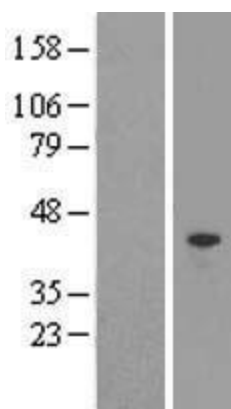
Product images:



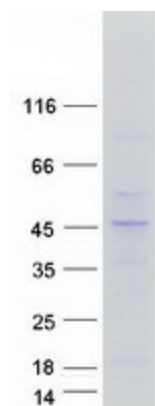
Circular map for RC210042



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY KLF2 (Cat# RC210042, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KLF2 (Cat# [TA807009]). Positive lysates [LY414082] (100ug) and [LC414082] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414082]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210042 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KLF2 protein (Cat# [TP310042]). The protein was produced from HEK293T cells transfected with KLF2 cDNA clone (Cat# RC210042) using MegaTran 2.0 (Cat# [TT210002]).