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Product datasheet for RC204423

Kallikrein 7 (KLK7) (NM_005046) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kallikrein 7 (KLK7) (NM_005046) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kallikrein 7
Synonyms:	hK7; PRSS6; SCCE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204423 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAAGATCCCTTCTCCTGCCCCTGCAGATCCTACTGCTATCCTTAGCCTTGGAAACTGCAGGAGAAG
AAGCCCAGGGTGACAAGATTATTGATGGCGCCCCATGTGCAAGAGGCTCCCACCCATGGCAGGTGGCCCT
GCTCAGTGGCAATCAGCTCCACTGCGGAGGCGTCCTGGTCAATGAGCGCTGGGTGCTCACTGCCGCCCAC
TGCAAGATGAATGAGTACACCGTGCACCTGGGCAGTGATACGCTGGGCGACAGGAGAGCTCAGAGGATCA
AGGCCTCGAAGTCATTCCGCCACCCCGGCTACTCCACACAGACCCATGTTAATGACCTCATGCTCGTGAA
GCTCAATAGCCAGGCCAGGCTGTCATCCATGGTGAAGAAAGTCAGGCTGCCCTCCCGCTGCGAACCCCCT
GGAACCACCTGTACTGTCTCCGGCTGGGGCACTACCACGAGCCCAGATGTGACCTTTCCCTCTGACCTCA
TGTGCGTGGATGTCAAGCTCATCTCCCCCCAGGACTGCACGAAGGTTTACAAGGACTTACTGGAAAATTC
CATGCTGTGCGCTGGCATCCCCGACTCCAAGAAAAACGCCTGCAATGGTGACTCAGGGGGACCGTTGGTG
TGCAGAGGTACCCTGCAAGGTCTGGTGTCCTGGGGAACTTTCCCTTGGGGCCAACCCAATGACCCAGGAG
TCTACACTCAAGTGTGCAAGTTCACCAAGTGGATAAATGACACCATGAAAAAGCATCGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC204423 protein sequence
Red=Cloning site Green=Tags(s)

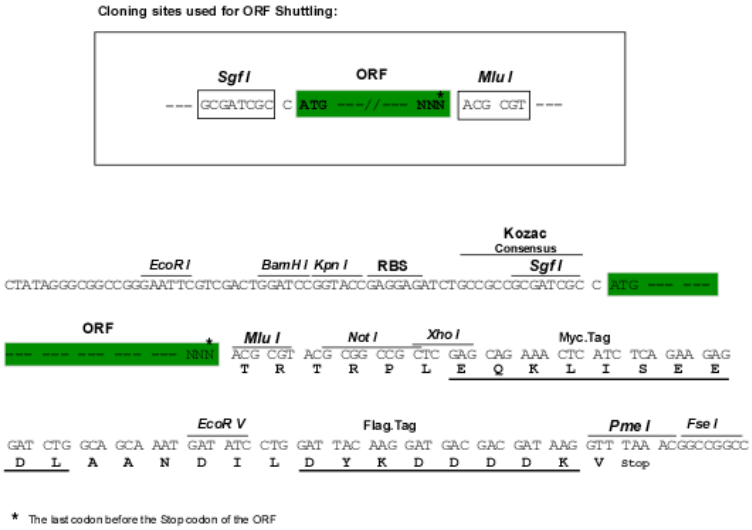
MARSLLLPLQILLLSLALETAGEEAQGDKIIDGAPCARGSHPWQVALLSGNQLHCGGVLVNERWVLTAAH
CKMNEYTVHLGSDTLGDRRAQRIKASKSFRHPGYSTQTHVNDLMLVKLNSQARLSSMVKKVRLPSRCEPP
GTTCTVSGWGTTTSPDVTFPSDLMCVDVKLISPQDCTKVYKDLLENSMLCAGIPDSKKNACNGDSGGPLV
CRGTLQGLVSWGTFPWGQPNDPGVYTQVCKFTKWINDTMKKHR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6325_d05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005046

ORF Size: 759 bp

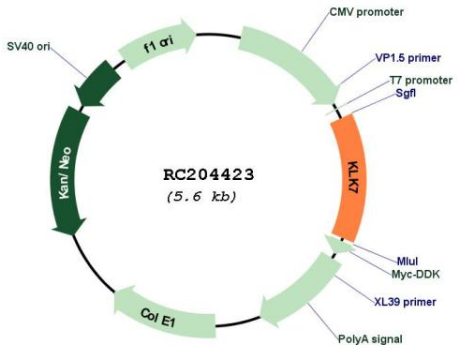
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

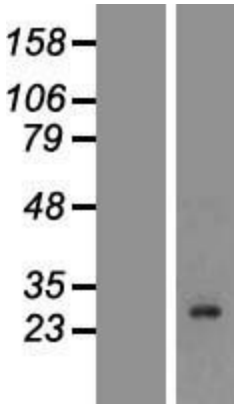
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_005046.4
RefSeq Size:	2104 bp
RefSeq ORF:	762 bp
Locus ID:	5650
UniProt ID:	P49862
Cytogenetics:	19q13.41
Protein Families:	Druggable Genome, Secreted Protein
MW:	27.6 kDa
Gene Summary:	This gene encodes a member of the kallikrein subfamily of serine proteases. These enzymes have diverse physiological functions and many kallikrein genes are biomarkers for cancer. The encoded protein has chymotrypsin-like activity and plays a role in the proteolysis of intercellular cohesive structures that precedes desquamation, the shedding of the outermost layer of the epidermis. The encoded protein may play a role in cancer invasion and metastasis, and increased expression of this gene is associated with unfavorable prognosis and progression of several types of cancer. Polymorphisms in this gene may play a role in the development of atopic dermatitis. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene, which is one of fifteen kallikrein subfamily members located in a gene cluster on chromosome 19. [provided by RefSeq, May 2011]

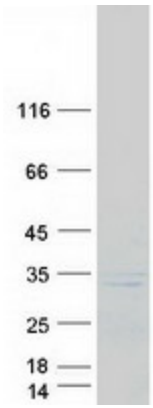
Product images:



Circular map for RC204423



Western blot validation of overexpression lysate (Cat# [LY408333]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC213930] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KLK7 protein (Cat# [TP304423]). The protein was produced from HEK293T cells transfected with KLK7 cDNA clone (Cat# RC204423) using MegaTran 2.0 (Cat# [TT210002]).