

Product datasheet for **RC216092**

ITK (NM_005546) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ITK (NM_005546) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ITK
Synonyms:	EMT; LPFS1; LYK; PSCTK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC216092 representing NM_005546
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAACAACCTTTATCCTCCTGGAAGAACAGCTCATCAAGAAATCCCAACAAAAGAGAAGAACTTCTCCCT
 CGAACTTTAAAGTCCGCTTCTTTGTGTTAACCAAGCCAGCCTGGCATACTTTGAAGATCGTCATGGGAA
 GAAGCGCACGCTGAAGGGTCCATTGAGCTCTCCGAATCAAATGTGTTGAGATTGTGAAAAGTGACATC
 AGCATCCCATGCCACTATAAATACCCGTTTCAGGTGGTGCATGACAACACTACCTCTATATGTGTTTGCTC
 CAGATCGTGAGAGCCGCGCAGCGTGGTGTGGCCCTAAAGAAGAAACGAGGAATAATAACAGTTTGGT
 GCCTAAATATCATCCTAATTTCTGGATGGATGGGAAGTGGAGGTGCTGTTCTCAGCTGGAGAAGCTTGCA
 ACAGGCTGTGCCAATATGATCCAACCAAGAATGCTTCAAAGAAGCCTTCTCCTACTCCTGAAGACA
 ACAGGCGACCACTTTGGGAACCTGAAGAACTGTGGTCATTGCCTTATATGACTACCAACCAATGATCC
 TCAGGAACCTCGACTGCGGCGCAACGAAGAGTACTGCCTGCTGGACAGTTCTGAGATTCAGTGGTGGAGA
 GTCCAGGACAGGAATGGGCATGAAGGATATGTACCAAGCAGTTATCTGGTGGAAAAATCTCCAAATAATC
 TGGAAACCTATGAGTGGTACAATAAGAGTATCAGCCGAGACAAAGCTGAAAAACTCTTTTGGACACAGG
 CAAAGAAGGAGCCTTCATGGTAAGGGATTCCAGGACTGCAGGAACATACACCGTGTCTGTTTTACCAAG
 GCTGTTGTAAGTGAGAACAATCCCTGTATAAAGCATTATCACATCAAGGAAACAAATGACAATCCTAAGC
 GATACTATGTGGCTGAAAAGTATGTGTTTCGATTCCATCCCTCTTCTCATCAACTATACCAACATAATGG
 AGGAGGCTGGTACTCGACTCCGGTATCCAGTTTGTGGGAGGCAGAAAGCCCCAGTTACAGCAGGG
 CTGAGATACGGGAAATGGGTGATCGACCCTCAGAGCTCACTTTGTGCAAGAGATTGGCAGTGGGCAAT
 TTGGGTTGGTGCATCTGGGCTACTGGCTCAACAAGGACAAGGTGGCTATCAAACCATTCGGGAAGGGGC
 TATGTGCAGAAGAGGACTTCATAGAGGAGGCTGAAGTAATGATGAAACTCTCTCATCCAAACTGGTGCAG
 CTGTATGGGGTGTGCCTGGAGCAGGCCCCCATCTGCCTGGTGTGTTGAGTTCATGGAGCACGGCTGCCTGT
 CAGATTATCTACGCACCCAGCGGGACTTTTTGCTGCAGAGACCCTGCTGGGCATGTGTCTGGATGTGTG
 TGAGGGCATGGCCTACCTGGAAGAGGCATGTGTATCCACAGAGACTTGGCTGCCAGAAATTGTTTGGT
 GGAGAAAACCAAGTCATCAAGGTGTCTGACTTTGGGATGACAAGTTCGTTCTGGATGATCAGTACACCA
 GTTCCACAGGCACCAATTCCTGGTGAAGTGGGCATCCCAGAGGTTTCTTTTCAGTCGCTATAGCAG
 CAAGTCCGATGTGTGGTCATTTGGTGTGCTGATGTGGAAAGTTTTCAGTGAAGGCAAAATCCCGTATGAA
 AACCGAAGCAACTCAGAGGTGGTGAAGACATCAGTACCGGATTCGGTGTACAAGCCCCGGCTGGCCT
 CCACACAGCTCTACCAGATTATGAATCACTGCTGGAAAGAGAGACCAGAAGATCGCCAGCCTTCTCCAG
 ACTGCTGCGTCAACTGGCTGAAATTGCAGAATCAGGACTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216092 representing NM_005546
 Red=Cloning site Green=Tags(s)

MNFI LLEEQLIKKSQQRRTSPSNFKVRFVFLTKASLAYFEDRHGKKRTLKGSIELSRIKCV EIVKSDI
 SIPCHYKYPFQVVDNYLLYVFAPDRESRQRWV LALKEETRNNNSLVPKYHPNFWMGKWRCCSQLEKLA
 TGCAQYDPTKNASKKPLPPTPEDNRRPLWEPEETVVIALYDYQTNDPQELALRRNEEYCLLDSSEIHWWR
 VQDRNGHEGYVPSSYLVEKSPNNLETYEWYNKSI SRDKAEKLLLDTGKEGAFMVRDSRTAGTYT VSVFTK
 AVVSENNPCIKHYHIKETNDNPKRYYVAEKYVFD SIPLLINYHQHNGGGLVTRLRYPVCFGRQKAPVTAG
 LRYGKWI DPSELT FVQEIGSGQFGLVHLGYWLNKDKVAIKTIREGAMSEEDFIEEA EVMMLKSHPKLVQ
 LYGVCLEQAPICLVFEFMEHGCLSDYLRTQRGLFAAETLLGMCLDVCEGMAYLEEACVIHRDLAARNCLV
 GENQVIKVSDFGMTRFVLDQYTSSTGTKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEV FSEGKIPYE
 NRSNSEVVEDISTGFRLYKPRLASTHVYQIMNHCWKERPDRPAFSRLLRQLAEIAESGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6250_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005546

ORF Size: 1860 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

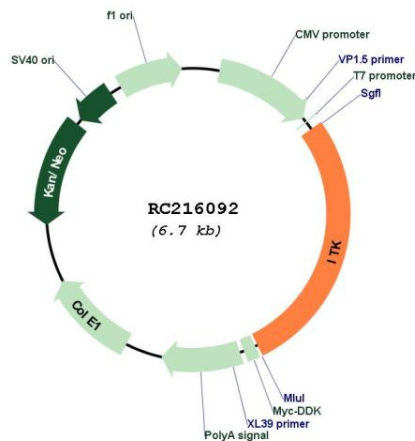
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

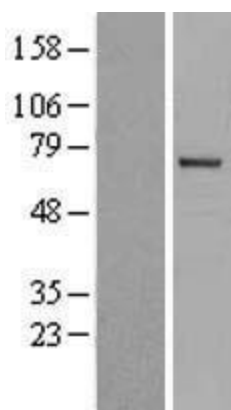
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_005546.4
RefSeq Size:	4366 bp
RefSeq ORF:	1863 bp
Locus ID:	3702
UniProt ID:	Q08881
Cytogenetics:	5q33.3
Domains:	pkinase, SH2, TyrKc, SH3, BTK, PH, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Chemokine signaling pathway, Leukocyte transendothelial migration, T cell receptor signaling pathway
MW:	71.7 kDa
Gene Summary:	This gene encodes an intracellular tyrosine kinase expressed in T-cells. The protein contains both SH2 and SH3 domains which are often found in intracellular kinases. It is thought to play a role in T-cell proliferation and differentiation. [provided by RefSeq, Jul 2008]

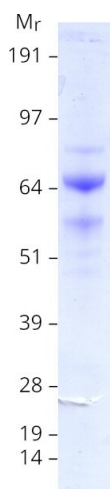
Product images:



Circular map for RC216092



Western blot validation of overexpression lysate (Cat# [LY401706]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216092 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITK protein (Cat# [TP316092]). The protein was produced from HEK293T cells transfected with ITK cDNA clone (Cat# RC216092) using MegaTran 2.0 (Cat# [TT210002]).