

## 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)



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**ORF Nucleotide Sequence:**

>RC216092 representing NM\_005546  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAACAACCTTTATCCTCCTGGAAGAACAGCTCATCAAGAAATCCCAACAAAAGAGAAGAACTTCTCCCT  
 CGAACTTTAAAGTCCGCTTCTTTGTGTTAACCAAGCCAGCCTGGCATACTTTGAAGATCGTCATGGGAA  
 GAAGCGCACGCTGAAGGGTCCATTGAGCTCTCCGAATCAAATGTGTTGAGATTGTGAAAAGTGACATC  
 AGCATCCCATGCCACTATAAATACCCGTTTCAGGTGGTGCATGACAACACTACCTCTATATGTGTTTGCTC  
 CAGATCGTGAGAGCCGCGCAGCGCTGGGTGCTGGCCCTAAAGAAGAAACGAGGAATAATAACAGTTTGGT  
 GCCTAAATATCATCCTAATTTCTGGATGGATGGGAAGTGGAGGTGCTGTTCTCAGCTGGAGAAGCTTGCA  
 ACAGGCTGTGCCAATATGATCCAACCAAGAATGCTTCAAAGAAGCCTTCTCCTACTCCTGAAGACA  
 ACAGGCGACCACTTTGGGAACCTGAAGAACTGTGGTCATTGCCTTATATGACTACCAACCAATGATCC  
 TCAGGAACCTCGACTGCGCGCAACGAAGAGTACTGCCTGCTGGACAGTTCTGAGATTCAGTGGTGGAGA  
 GTCCAGGACAGGAATGGGCATGAAGGATATGTACCAAGCAGTTATCTGGTGGAAAAATCTCCAAATAATC  
 TGGAAACCTATGAGTGGTACAATAAGAGTATCAGCCGAGACAAAGCTGAAAAACTCTTTTGGACACAGG  
 CAAAGAAGGAGCCTTCATGGTAAGGGATTCCAGGACTGCAGGAACATACACCGTGTCTGTTTTACCAAG  
 GCTGTTGTAAGTGAGAACAATCCCTGTATAAAGCATTATCACATCAAGGAAACAAATGACAATCCTAAGC  
 GATACTATGTGGCTGAAAAGTATGTGTTTCGATTCCATCCCTCTTCTCATCAACTATACCAACATAATGG  
 AGGAGGCTGGTACTCGACTCCGGTATCCAGTTTGTGGGAGGCAGAAAGCCCCAGTTACAGCAGGG  
 CTGAGATACGGGAAATGGGTGATCGACCCTCAGAGCTCACTTTGTGCAAGAGATTGGCAGTGGGCAAT  
 TTGGGTTGGTGCATCTGGGCTACTGGCTCAACAAGGACAAGGTGGCTATCAAACCATTCCGGGAAGGGGC  
 TATGTGCAGAAGAGGACTTCATAGAGGAGGCTGAAGTAATGATGAAACTCTCTCATCCAAACTGGTGCAG  
 CTGTATGGGTGTGCCTGGAGCAGGCCCCCATCTGCCTGGTGTGTTGAGTTCATGGAGCACGGCTGCCTGT  
 CAGATTATCTACGCACCCAGCGGGACTTTTTGCTGCAGAGACCCTGCTGGGCATGTGTCTGGATGTGTG  
 TGAGGGCATGGCCTACCTGGAAGAGGCATGTGTATCCACAGAGACTTGCTGCCAGAAATTGTTTGGTG  
 GGAGAAAACCAAGTCATCAAGGTGTCTGACTTTGGGATGACAAGGTTCTGTTCTGGATGATCAGTACCA  
 GTTCCACAGGCACCAATTCCTGGTGAAGTGGGCATCCCAGAGGTTTCTTTTCAGTCGCTATAGCAG  
 CAAGTCCGATGTGTGGTCATTTGGTGTGCTGATGTGGAAAGTTTTCAGTGAAGGCAAAATCCCGTATGAA  
 AACCGAAGCAACTCAGAGGTGGTGAAGACATCAGTACCGGATTCGGTGTACAAGCCCCGGCTGGCCT  
 CCACACAGCTCTACCAGATTATGAATCACTGCTGGAAAGAGAGACCAGAAGATCGCCAGCCTTCTCCAG  
 ACTGCTGCGTCAACTGGCTGAAATTGCAGAATCAGGACTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC216092 representing NM\_005546  
 Red=Cloning site Green=Tags(s)

MNFIILLEEQLIKKSQQRRTSPSNFKVRFVFLTKASLAYFEDRHGKKRTLKGSIELSRIKCVIEIVKSDI  
 SIPCHYKYPFQVVDNYLLYVFAPDRESRQRWVLAALKEETRNNSLVPKYHPNFWMGKWRCCSQLEKLA  
 TGCAQYDPTKNASKKPLPPTPEDNRRPLWEPEETVVIALYDYQTNDPQELALRRNEEYCLLDSSEIHWWR  
 VQDRNGHEGYVPSSYLVEKSPNNLETYEWYNKSI SRDKAEKLLLDTGKEGAFMVRDSRTAGTYTVSVFTK  
 AVVSENNPCIKHYHIKETNDNPKRYYVAEKYVFDIPLLINYHQHNGGLVTRLRYPVCFGRQKAPVTAG  
 LRYGKWWIDPSELTFVQEIGSGQFGLVHLGYWLNKDKVAIKTIREGAMSEEDFIEEA EVMMLKSHPKLVQ  
 LYGVCLEQAPICLVFEFMEHGCLSDYLRTQRGLFAAETLLGMCLDVCEGMAYLEEACVIHRDLAARNCLV  
 GENQVIKVSDFGMTRFVLDQYTSSTGTGKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEVFESEGIPEY  
 NRSNSEVVEDISTGFRLYKPRLASTHVYQIMNHCWKERPDRPAFSRLLRQLAEIAESGL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV



**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\\_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

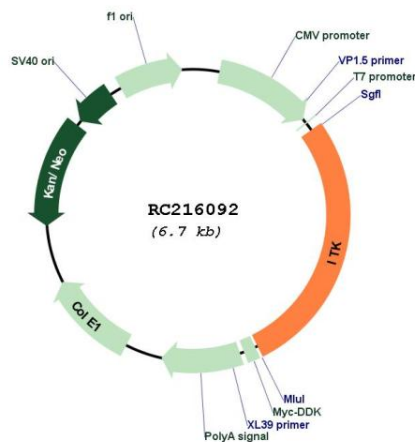
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Chemokine signaling pathway, Leukocyte transendothelial migration, T cell receptor signaling pathway

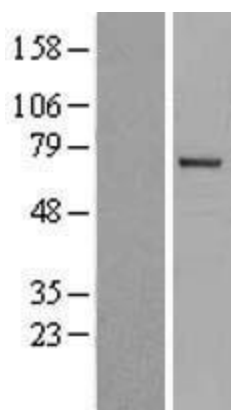
**MW:** 71.7 kDa

**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]

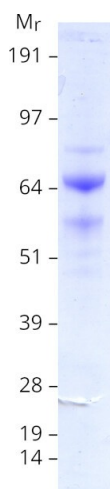
### Product images:



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]).