

## Product datasheet for **RG216092**

### ITK (NM\_005546) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ITK (NM_005546) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ITK
Synonyms:	EMT; LPFS1; LYK; PSCTK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG216092 representing NM\_005546  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAACAACCTTTATCCTCCTGGAAGAACAGCTCATCAAGAAATCCCAACAAAAGAGAAGAACTTCTCCCT  
 CGAACTTTAAAGTCCGCTTCTTTGTGTTAACCAAAGCCAGCCTGGCATACTTTGAAGATCGTCATGGGAA  
 GAAGCGCACGCTGAAGGGTCCATTGAGCTCTCCGAATCAAATGTGTTGAGATTGTGAAAAGTGACATC  
 AGCATCCCATGCCACTATAAATACCCGTTTCAGGTGGTGCATGACAACACTACCTCTATATGTGTTTGCTC  
 CAGATCGTGAGAGCCGCGAGCGCTGGGTGCTGGCCCTAAAGAAGAAACGAGGAATAATAACAGTTTGGT  
 GCCTAAATATCATCCTAATTTCTGGATGGATGGGAAGTGGAGGTGCTGTTCTCAGCTGGAGAAGCTTGA  
 ACAGGCTGTGCCAATATGATCCAACCAAGAATGCTTCAAAGAAGCCTTCTCCTACTCCTGAAGACA  
 ACAGGCGACCACTTTGGGAACCTGAAGAACTGTGGTCATTGCCTTATATGACTACCAAACCAATGATCC  
 TCAGGAACTCGCACTGCGCGCAACGAAGAGTACTGCCTGCTGGACAGTTCTGAGATTCAGTGGTGGAGA  
 GTCCAGGACAGGAATGGGCATGAAGGATATGTACCAAGCAGTTATCTGGTGGAAAAATCTCCAAATAATC  
 TGGAAACCTATGAGTGGTACAATAAGAGTATCAGCCGAGACAAAGCTGAAAAACTCTTTTGGACACAGG  
 CAAAGAAGGAGCCTTCATGGTAAGGGATTCCAGGACTGCAGGAACATACACCGTGTCTGTTTTACCAAG  
 GCTGTTGTAAGTGAACAATCCCTGTATAAAGCATTATCACATCAAGGAAACAAATGACAATCCTAAGC  
 GATACTATGTGGCTGAAAAGTATGTGTTTCGATTCCATCCCTCTTCTCATCAACTATACCAAACATAATGG  
 AGGAGGCTGGTACTCGACTCCGGTATCCAGTTTGTGGGAGGCAGAAAGCCCCAGTTACAGCAGGG  
 CTGAGATACGGGAAATGGGTGATCGACCCCTCAGAGCTCACTTTTGTGCAAGAGATTGGCAGTGGCAAT  
 TTGGGTTGGTGCATCTGGGCTACTGGCTCAACAAGGACAAGGTGGCTATCAAACCATTCCGGAAGGGGC  
 TATGTGCAGAAGAGGACTTCATAGAGGAGGCTGAAGTAATGATGAAACTCTCTCATCCCAAACCTGGTGCAG  
 CTGTATGGGGTGTGCTGGAGCAGGCCCCCATCTGCCTGGTGTGTTGAGTTCATGGAGCACGGCTGCCTGT  
 CAGATTATCTACGCACCCAGCGGGACTTTTTGCTGCAGAGACCCTGCTGGGCATGTGTCTGGATGTGTG  
 TGAGGGCATGGCCTACCTGGAAGAGGCATGTGTATCCACAGAGACTTGGCTGCCAGAAATTGTTTGGT  
 GGAGAAAACCAAGTCATCAAGGTGTCTGACTTTGGGATGACAAGGTTCTGTTCTGGATGATCAGTACCA  
 GTTCCACAGGCACCAATTCCTGGTGAAGTGGGCATCCCAGAGGTTTCTCTTTTCAGTCGCTATAGCAG  
 CAAGTCCGATGTGTGGTCATTTGGTGTGCTGATGTGGAAAGTTTTCAGTGAAGGCAAAATCCCGTATGAA  
 AACCGAAGCAACTCAGAGGTGGTGAAGACATCAGTACCGGATTCGGTGTACAAGCCCCGGCTGGCCT  
 CCACACACGTCTACCAGATTATGAATCACTGCTGGAAAGAGAGACCAGAAGATCGCCAGCCTTCTCCAG  
 ACTGCTGCGTCAACTGGCTGAAATTGCAGAATCAGGACTT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG216092 representing NM\_005546  
 Red=Cloning site Green=Tags(s)

MNNFILLLEEQLIKKSQKRRRTSPSNFKVRFVLTAKSLAYFEDRHGKKRTLKGSIELSRIKCVIIVKSDI  
 SIPCHYKYPFQVVDNYLLYVAFPDRESRQRWVLAALKEETRNNSLVPKYHPNFWMGKWRCCSQLEKLA  
 TGCAQYDPTKNASKKPLPPTPEDNRRPLWEPEETVVIALYDYQTNQPQLALRRNEEYCLLDSSEIHWWR  
 VQDRNGHEGYVPSSYLVEKSPNNLETYEWYNKSI SRDKAEKLLLDTGKEGAFMVRDSRTAGTYTVSVFTK  
 AVVSENNPCIKHYHIKETNDNPKRYVVAEKYVFDIPLLLINYHQHNGGGLVTRLRYPVCFGRQKAPVTAG  
 LRYGKWIIDPSELTFVQEIGSGQFGLVHLGYLWLNKDKVAIKTIREGAMSEEDFIEEAEMMMLSHPKLVQ  
 LYGVCLEQAPICLVFEFMEHGCLSDYLRTQRGLFAAETLLGMCLDVCEGMAYLEEACVIHRDLAARNCLV  
 GENQVIKVSDFGMTRFVLDQYTSSTGTFKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEVVFSEGIKPYE  
 NRSNSEVVEDISTGFRLYKPRLASTHVYQIMNHCWKERPDRPAFSRLLRQLAEIAESGL

**TRTRPLE** – GFP Tag – V

**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](mailto: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.

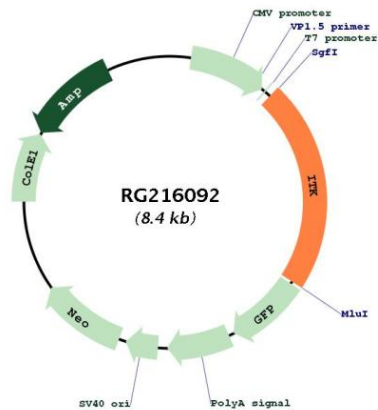
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
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:	<u><a href="#">Q08881</a></u>
Cytogenetics:	5q33.3
Domains:	kinase, 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
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 RG216092