

## Product datasheet for **RG234216**

### Ikaros (IKZF1) (NM\_001220765) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ikaros (IKZF1) (NM_001220765) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ikaros
Synonyms:	CVID13; Hs.54452; IK1; IKAROS; LyF-1; LYF1; PPP1R92; PRO0758; ZNFN1A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234216 representing NM\_001220765  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGATGCTGATGAGGGTCAAGACATGTCCCAAGTTTCAGGGAAGGAAAGCCCCCTGTAAGCGTACTC  
 CAGATGAGGGCGATGAGCCCATGCCGATCCCCGAGGACCTCTCCACCACCTCGGGAGGACAGCAAAGCTC  
 CAAGAGTGACAGAGTCGTGGCCAGTAATGTTAAAGTAGAGACTCAGAGTGATGAAGAGAATGGGCGTGCC  
 TGTGAAATGAATGGGGAAGAATGTGCGGAGGATTTACGAATGCTTGATGCCTCGGGAGAGAAAATGAATG  
 GCTCCACAGGGACCAAGGCAGCTCGGCTTTGTCGGGAGTTGGAGGCATTCGACTTCTAACGGAAAAC  
 AAAGTGTGATATCTGTGGGATCATTTCGATCGGGCCCAATGTGCTCATGGTTCACAAAAGAAGCCACACT  
 GGAGAACGGCCCTCCAGTGCAATCAGTGCAGGGCCCTCATTACCCAGAAGGGCAACCTGCTCCGGCACA  
 TCAAGTCGATTCGGGGAGAAGCCCTTCAAATGCCACCTCTGCAACTACGCCTGCCGCCGAGGGGACGC  
 CCTCACTGGCCACCTGAGGACGCACTCCGTCATTAAGAAGAAACTAATCACAGTAAATGTCAGAAAGAC  
 CTGTGCAAGATAGGATCAGAGAGATCTCTCGTGTGGACAGACTAGCAAGTAACGTCGCCAACGTAAGA  
 GCTCTATGCCTCAGAAATTTCTTGGGGACAAGGGCCTGTCCGACACGCCCTACGACAGCAGCGCCAGCTA  
 CGAGAAGGAGAACGAAATGATGAAGTCCCACGTGATGGACCAAGCCATCAACAACGCCATCAACTACCTG  
 GGGGCCGAGTCCCTGCGCCCGCTGGTGCAGACGCCCGGGCGGTTCCGAGGTGGTCCCGGTTCATCAGCC  
 CGATGTACCAGCTGCACAAGCCGCTCGCGGAGGGCACCCCGCGCTCAACCACTCGGCCAGGACAGCGC  
 CGTGGAGAACCTGCTGCTGCTCTCAAGGCAAGTTGGTGCCTCGGAGCGGAGCGTCCCGGAGCAAC  
 AGCTGCCAAGACTCCACGGACACCGAGAGCAACAACGAGGAGCAGCGCAGCGGTCTCATCTACCTGACCA  
 ACCACATCGCCCGCACGCGCGCAACGGGCTGTCGCTCAAGGAGGAGCACCGCGCTACGACCTGCTGCG  
 CGCCGCTCCGAGAACTCGCAGGACGCGCTCCGCGTGGTCAAGCACCAGCGGGGAGCAGATGAAGGTGTAC  
 AAGTGCAGAACTGCCGGGTGCTCTTCTGGATCACGTATGTACACCATCCACATGGGCTGCCACGGCT  
 TCCGTGATCCTTTGAGTGCAACATGTGCGGCTACCACAGCCAGGACCGGTACGAGTTCTCGTCGCACAT  
 AACGCGAGGGGAGCACCGCTTCCACATGAGC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG234216 representing NM\_001220765  
 Red=Cloning site Green=Tags(s)

MDADEGQDMSQVSGKESPPVSDTPDEGDEPMPPIPEDLSTTSGGQQSSKSDRVVASNVKVETQSDEENGR  
 CEMNGEECAEDLRMLDASGEMNGSHRDQSSALSGVGGIRLPNGKLCDCIGIICIGPNVLMVHKRSHT  
 GERPFQCNQCGASFTQKGNLLRHIKLSGKPKFKCHLCNYACRRRDALTGHLRTHSVIKEETNHSEMAED  
 LCKIGSERSLVLDRLASNVAKRKSMPQKFLGDKGLSDTPYDSSASYEKENEMMKSHVMDQAINNAINYL  
 GAESLRPLVQTPPGGSEVVPVISPMYQLHKPLAEGTTPRSNHSAQDSAVENLLLLSKAKLVPSEREASPSN  
 SCQDSTDTESNNEEQRSGLIYL TNHIAPHARNGLSLKEEHRAVDLLRAASENSQDALRVVSTSGEQMKVY  
 KCEHCRVFLDHVMTIHMGCHEFRDPFECNMCGYHSQDRYEFSSHITRGEHRFHMS

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001220765

**ORF Size:** 1431 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.

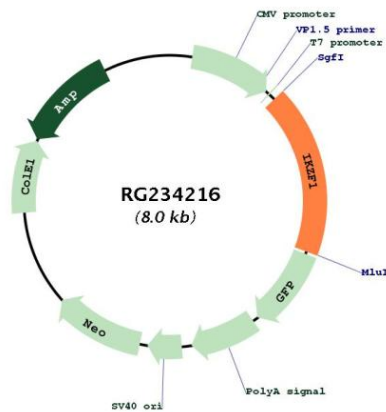
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_001220765.3](#)  
**RefSeq Size:** 6091 bp  
**RefSeq ORF:** 1434 bp  
**Locus ID:** 10320  
**UniProt ID:** [Q13422](#)  
**Cytogenetics:** 7p12.2  
**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** This gene encodes a transcription factor that belongs to the family of zinc-finger DNA-binding proteins associated with chromatin remodeling. The expression of this protein is restricted to the fetal and adult hemo-lymphopoietic system, and it functions as a regulator of lymphocyte differentiation. Several alternatively spliced transcript variants encoding different isoforms have been described for this gene. Most isoforms share a common C-terminal domain, which contains two zinc finger motifs that are required for hetero- or homo-dimerization, and for interactions with other proteins. The isoforms, however, differ in the number of N-terminal zinc finger motifs that bind DNA and in nuclear localization signal presence, resulting in members with and without DNA-binding properties. Only a few isoforms contain the requisite three or more N-terminal zinc motifs that confer high affinity binding to a specific core DNA sequence element in the promoters of target genes. The non-DNA-binding isoforms are largely found in the cytoplasm, and are thought to function as dominant-negative factors. Overexpression of some dominant-negative isoforms have been associated with B-cell malignancies, such as acute lymphoblastic leukemia (ALL). [provided by RefSeq, May 2014]

### Product images:



Circular map for RG234216