

Product datasheet for SC331775

OriGene Technologies, Inc.

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Ikaros (IKZF1) (NM_001220770) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Ikaros (IKZF1) (NM_001220770) Human Untagged Clone

Tag: Tag Free Symbol: Ikaros

Synonyms: CVID13; Hs.54452; IK1; IKAROS; LyF-1; LYF1; PPP1R92; PRO0758; ZNFN1A1

Vector: pCMV6-Entry (PS100001)

Fully Sequenced ORF: >SC331775 representing NM_001220770.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

CCAGATGAGGGCGATGAGCCCATGCCGATCCCCGAGGACCTCTCCACCACCTCGGGAGGACAGCAAAGC TCCAAGAGTGACAGAGTCGTGGGAGAACGGCCCTTCCAGTGCAATCAGTGCGGGGCCTCATTCACCCAG AAGGGCAACCTGCTCCGGCACATCAAGCTGCATTCCGGGGAGAAGCCCTTCAAATGCCACCTCTGCAAC TACGCCTGCCGCCGGAGGGACGCCCTCACTGGCCACCTGAGGACGCACTCCGTCATTAAAGAAGAAAACT AATCACAGTGAAATGGCAGAAGACCTGTGCAAGATAGGATCAGAGAGATCTCTCGTGCTGGACAGACTA GCAAGTAACGTCGCCAAACGGGACAAGGGCCTGTCCGACACGCCCTACGACAGCAGCGCCAGCTACGAG AAGGAGAACGAAATGATGAAGTCCCACGTGATGGACCAAGCCATCAACAACGCCATCAACTACCTGGGG GCCGAGTCCCTGCGCCCGCTGGTGCAGACGCCCCCGGGCGGTTCCGAGGTGGTCCCGGTCATCAGCCCG ATGTACCAGCTGCACAAGCCGCTCGCGGAGGGCACCCCGCGCTCCAACCACTCGGCCCAGGACAGCGCC GTGGAGAACCTGCTGCTCCCCAAGGCCAAGTTGGTGCCCTCGGAGCGCGAGGCGTCCCCGAGCAAC AGCTGCCAAGACTCCACGGACACCGAGAGCAACAACGAGGAGCAGCGCAGCGGTCTCATCTACCTGACC AACCACATCGCCCCGCACGCGCGCAACGGGCTGTCGCTCAAGGAGGAGCACCGCGCCTACGACCTGCTG CGCGCCGCCTCCGAGAACTCGCAGGACGCGCTCCGCGTGGTCAGCACCAGCGGGGAGCAGATGAAGGTG TACAAGTGCGAACACTGCCGGGTGCTCTTCCTGGATCACGTCATGTACACCATCCACATGGGCTGCCAC GGCTTCCGTGATCCTTTTGAGTGCAACATGTGCGGCTACCACAGCCAGGACCGGTACGAGTTCTCGTCG

CACATAACGCGAGGGGAGCACCGCTTCCACATGAGCTAA

Restriction Sites: Sgfl-Mlul

ACCN: NM_001220770

Insert Size: 1143 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).





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: <u>NM 001220770.1</u>

 RefSeq Size:
 5800 bp

 RefSeq ORF:
 1143 bp

 Locus ID:
 10320

 UniProt ID:
 Q13422

 Cytogenetics:
 7p12.2

Protein Families: Druggable Genome, Transcription Factors

MW: 42.4 kDa

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] Transcript Variant: This variant (7) lacks an alternate in-frame exon in both the 5' and central coding regions, and uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. The encoded isoform (7, also known as Ik-4(del) as described in PMID:9892693), is shorter than isoform 1. This isoform contains only two N-terminal zinc finger motifs, and represents a non-DNA-binding, dominant-negative isoform (PMID:9892693). Sequence Note: The 5' UTR of this variant is incomplete because there are no full-length transcripts supporting this variant, and there is splicing ambiguity in the 5' UTR.