ARG40706
anti-IKZF1 / Ikaros antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes IKZF1 / Ikaros
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	IKZF1 / Ikaros
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 428-459 of Human Ikaros. (LKEEHRAYDLLRAASENSQDALRVVSTSGEQM)
Conjugation	Un-conjugated
Alternate Names	IK1; Hs.54452; LYF1; PPP1R92; LyF-1; Lymphoid transcription factor LyF-1; IKAROS; Ikaros family zinc finger protein 1; DNA-binding protein Ikaros; PRO0758; ZNFN1A1

Application Instructions

Application table

Application	Dilution
FACS	1:150 - 1:500
ICC/IF	1:200 - 1:1000
IHC-P	1:200 - 1:1000
WB	1:500 - 1:2000

Application Note

* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

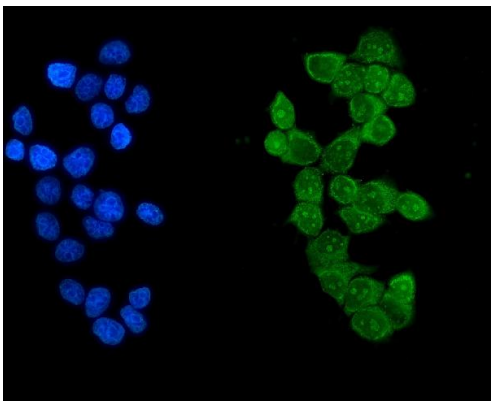
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

	before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

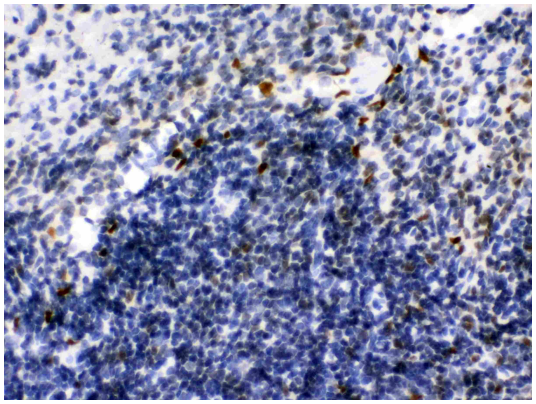
Gene Symbol	IKZF1
Gene Full Name	IKAROS family zinc finger 1 (Ikaros)
Background	This gene encodes a transcription factor that belongs to the family of zinc-finger DNA-binding proteins associated with chromatin remodeling. The expression of this protein is restricted to the fetal and adult hemo-lymphopoietic 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]
Function	Transcription regulator of hematopoietic cell differentiation. Binds gamma-satellite DNA. Plays a role in the development of lymphocytes, B- and T-cells. Binds and activates the enhancer (delta-A element) of the CD3-delta gene. Repressor of the TDT (fikzfterminal deoxynucleotidyltransferase) gene during thymocyte differentiation. Regulates transcription through association with both HDAC-dependent and HDAC-independent complexes. Targets the 2 chromatin-remodeling complexes, NuRD and BAF (SWI/SNF), in a single complex (PYR complex), to the beta-globin locus in adult erythrocytes. Increases normal apoptosis in adult erythroid cells. Confers early temporal competence to retinal progenitor cells (RPCs) (By similarity). Function is isoform-specific and is modulated by dominant-negative inactive isoforms. [UniProt]
Calculated Mw	58 kDa
PTM	Phosphorylation controls cell-cycle progression from late G(1) stage to S stage. Hyperphosphorylated during G2/M phase. Dephosphorylated state during late G(1) phase. Phosphorylation on Thr-140 is required for DNA and pericentromeric location during mitosis. CK2 is the main kinase, in vitro. GSK3 and CDK may also contribute to phosphorylation of the C-terminal serine and threonine residues. Phosphorylation on these C-terminal residues reduces the DNA-binding ability. Phosphorylation/dephosphorylation events on Ser-13 and Ser-295 regulate TDT expression during thymocyte differentiation. Dephosphorylation by protein phosphatase 1 regulates stability and pericentromeric heterochromatin location. Phosphorylated in both lymphoid and non-lymphoid tissues (By similarity). Phosphorylation at Ser-361 and Ser-364 downstream of SYK induces nuclear translocation. Sumoylated. Simulataneous sumoylation on the 2 sites results in a loss of both HDAC-dependent and HDAC-independent repression. Has no effect on pericentromeric heterochromatin location. Desumoylated by SENP1 (By similarity). Polyubiquitinated. [UniProt]
Cellular Localization	Nucleus. Isoform Ik2: Nucleus. Isoform Ik6: Cytoplasm. [UniProt]

Images



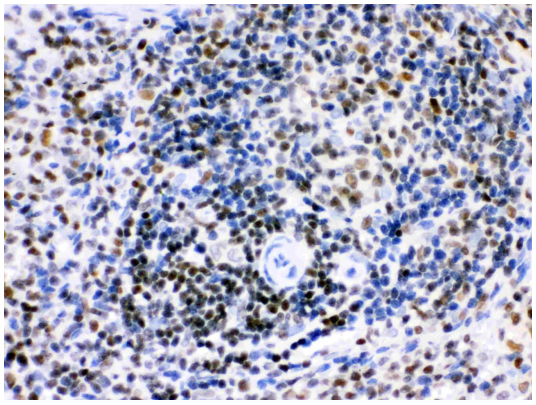
ARG40706 anti-IKZF1 / Ikaros antibody ICC/IF image

Immunofluorescence: MCF-7 cells were blocked with 10% goat serum and then stained with ARG40706 anti-IKZF1 / Ikaros antibody (green) at 5 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



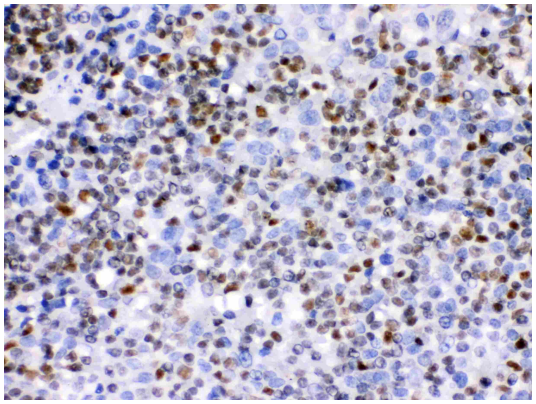
ARG40706 anti-IKZF1 / Ikaros antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse spleen tissue stained with ARG40706 anti-IKZF1 / Ikaros antibody.



ARG40706 anti-IKZF1 / Ikaros antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat spleen tissue stained with ARG40706 anti-IKZF1 / Ikaros antibody.



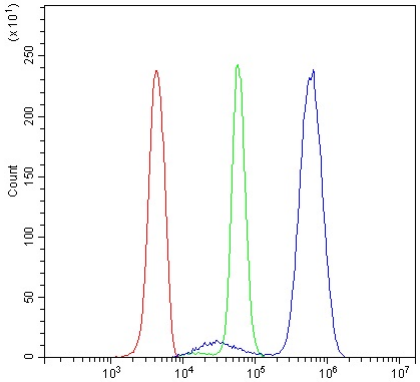
ARG40706 anti-IKZF1 / Ikaros antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human tonsil tissue stained with ARG40706 anti-IKZF1 / Ikaros antibody.

HeLa

ARG40706 anti-IKZF1 / Ikaros antibody WB image

Western blot: 40 µg of HeLa whole cell lysate stained with ARG40706 anti-IKZF1 / Ikaros antibody at 0.5 µg/ml dilution.



ARG40706 anti-IKZF1 / Ikaros antibody FACS image

Flow Cytometry: U937 cells were blocked with 10% normal goat serum and then stained with ARG40706 anti-IKZF1 / Ikaros antibody (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.