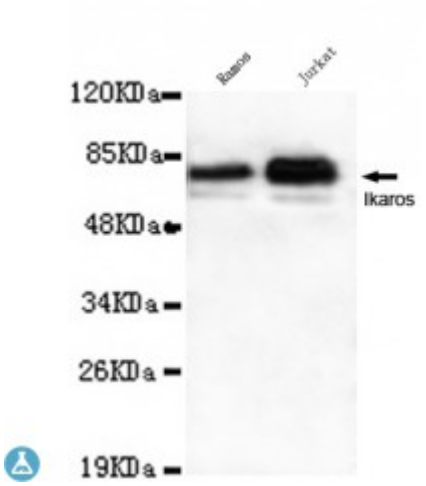
Anti-Ikaros antibody



Description	Mouse monoclonal to Ikaros.

Model	STJ99100
Host	Mouse
Reactivity	Human
Applications	ELISA, WB
Immunogen	Purified recombinant human Ikaros (C-term) protein fragments expressed in E.coli.
Immunogen Region	C-term
Gene ID	10320
Gene Symbol	IKZF1
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	This antibody detects endogenous levels of Ikaros (C-term) and does not cross-react with related proteins.
Tissue Specificity	Abundantly expressed in thymus, spleen and peripheral blood Leukocytes and lymph nodes. Lower expression in bone marrow and small intestine.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clone ID	1A12-F2-D8
Note	For Research Use Only (RUO).
Protein Name	DNA-binding protein Ikaros Ikaros family zinc finger protein 1 Lymphoid

	transcription factor LyF-1
Molecular Weight	58kDa
Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:13176OMIM:603023
Alternative Names	DNA-binding protein Ikaros Ikaros family zinc finger protein 1 Lymphoid transcription factor LyF-1
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) . Function is isoform-specific and is modulated by dominant-negative inactive isoforms .
Sequence and Domain Family	The N-terminal zinc-fingers 2 and 3 are required for DNA binding as well as for targeting IKFZ1 to pericentromeric heterochromatin. The C-terminal zinc-finger domain is required for dimerization.
Cellular Localization	Nucleus. In resting lymphocytes, distributed diffusely throughout the nucleus. Localizes to pericentromeric heterochromatin in proliferating cells. This localization requires DNA binding which is regulated by phosphorylation / dephosphorylation events. Isoform Ik2: Nucleus. In resting lymphocytes, distributed diffusely throughout the nucleus. Localizes to pericentromeric heterochromatin in proliferating cells. This localization requires DNA binding which is regulated by phosphorylation / dephosphorylation events . Isoform Ik6: Cytoplasm
Post-translational Modifications	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 . 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 . Polyubiquitinated.