Ikaros (D6N9Y) Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IHC-P, IF-F, IF-IC, FC-FP, ChIP, ChIP-seq, C&R	H M	Endogenous	50-70	Rabbit IgG	#Q13422	10320

Product Usage Information

For optimal ChIP and ChIP-seq results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunohistochemistry (Paraffin)	1:250 - 1:1000
Immunofluorescence (Frozen)	1:50 - 1:100
Immunofluorescence (Immunocytochemistry)	1:100
Flow Cytometry (Fixed/Permeabilized)	1:50 - 1:200
Chromatin IP	1:100
Chromatin IP-seq	1:100
CUT&RUN	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #30979.

Specificity/Sensitivity

Ikaros (D6N9Y) Rabbit mAb recognizes endogenous levels of total Ikaros protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro329 of human Ikaros protein.

Background

The Ikaros family of zinc-finger DNA-binding proteins belongs to the Kruppel transcription factor superfamily. Ikaros proteins are characterized by the presence of an amino-terminal zinc finger DNA-binding domain and a carboxy-terminal dimerization domain. Members of the Ikaros family include Ikaros, Aiolos, Helios, EOS, and Pegasus (1). All family members can form homodimers and heterodimers with other members of the Ikaros family. Most also contain multiple isoforms that are generated as a result of differential splicing, with some isoforms behaving in a dominant negative manner upon dimerization (2).

Ikaros (IKZF1, LYF1) is the prototypical Ikaros family zinc-finger transcription factor and is expressed abundantly in lymphoid cells. Genetic studies in mice demonstrate that Ikaros is a tumor suppressor that is important for the normal development of B, T, natural killer, and dendritic cells (3,4). Additional studies show that imbalanced expression of different Ikaros isoforms, as well as mutations in the corresponding *IKAROS* gene, can be associated with a number of hematologic malignancies in humans (2,5,6).

Background References

1. Perdomo, J. et al. (2000) *J Biol Chem* 275, 38347-54.
2. Rebollo, A. and Schmitt, C. (2003) *Immunol Cell Biol* 81, 171-5.
3. Georgopoulos, K. et al. (1997) *Annu Rev Immunol* 15, 155-76.
4. Nichogiannopoulou, A. et al. (1998) *Semin Immunol* 10, 119-25.
5. Tonnelle, C. et al. (2002) *Leuk Lymphoma* 43, 29-35.
6. Martinelli, G. et al. (2009) *J Clin Oncol* 27, 5202-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **ChIP:** Chromatin IP **ChIP-seq:** Chromatin IP-seq **C&R:** CUT&RUN

Cross-Reactivity Key

H: Human **M:** Mouse

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