

Store at
-20C
#12720

Aiolos Antibody



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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 58, 65	Source/Isotype: Rabbit	UniProt ID: #Q9UKT9	Entrez-Gene Id: 22806
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

Aiolos Antibody recognizes endogenous levels of total Aiolos protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro46 of human Aiolos protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Aiolos is an Ikaros family transcription factor composed of several zinc fingers that mediate DNA binding and homodimerization or heterodimerization with other Ikaros family members (1). Multiple Aiolos isoforms are generated through alternative splicing of the portion of the transcript encoding the amino-terminal zinc fingers (2). Aiolos is expressed by lymphoid tissues, with highest expression levels seen in mature B and T cells (1). Ikaros family proteins control lymphocyte development by recruiting chromatin remodeling complexes to DNA (3). B cells from mice lacking Aiolos have a reduced threshold for activation, increased proliferation, and elevated levels of IgG and IgE. In addition, Aiolos null mice develop B cell lymphomas (4). In T cells, Aiolos contributes to Th17 cell differentiation by suppressing IL-2 expression (5). Aberrant expression of Aiolos in transformed epithelial cells promotes anchorage independence through downregulation of adhesion-related genes (6). Alterations in the *Aiolos* gene are observed in near haploid acute lymphoblastic leukemia, and the genetic locus containing Aiolos is linked to increased susceptibility to rheumatoid arthritis and systemic lupus erythematosus (7-9).

Background References

1. Morgan, B. et al. (1997) *EMBO J* 16, 2004-13.
2. Liippo, J. et al. (2001) *Eur J Immunol* 31, 3469-74.
3. Kim, J. et al. (1999) *Immunity* 10, 345-55.
4. Wang, J.H. et al. (1998) *Immunity* 9, 543-53.
5. Quintana, F.J. et al. (2012) *Nat Immunol* 13, 770-7.
6. Li, X. et al. (2014) *Cancer Cell* 25, 575-89.
7. Holmfeldt, L. et al. (2013) *Nat Genet* 45, 242-52.
8. Kurreeman, F.A. et al. (2012) *Am J Hum Genet* 90, 524-32.
9. Lessard, C.J. et al. (2012) *Am J Hum Genet* 90, 648-60.

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

Cross-Reactivity Key

H: Human

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