

Aiolos (S-14): sc-160012

BACKGROUND

Ikaros family members, including Ikaros and Helios, are nuclear factors that colocalize with DNA replication machinery components in higher-order chromatin structures and respond to signaling events, such as T cell activation. Helios and Ikaros bind to similar DNA sequences and they function as hematopoietic-specific transcription factors. Members of the Ikaros family contain zinc-finger domains that are involved in DNA-binding and in the formation of homodimers and heterodimers between Ikaros family members. Aiolos, also known as zinc finger protein Ikaros 3 or ZNF1A3, is a 509 amino acid nuclear protein. Aiolos plays an important role in lymphocyte differentiation regulation and, via this role, mutated Aiolos is implicated in leukemogenesis. Expressed in most tissues, Aiolos is predominantly found in spleen, thymus and peripheral blood leukocytes. Aiolos contains six C₂H₂-type zinc fingers, a motif commonly involved in nucleotide binding. Aiolos interacts with Ikaros family members, including Eos and Pegasus.

REFERENCES

1. Wang, J.H., et al. 1998. Aiolos regulates B cell activation and maturation to effector state. *Immunity* 9: 543-553.
2. Hosokawa, Y., et al. 1999. Human aiolos, an ikaros-related zinc finger DNA binding protein: cDNA cloning, tissue expression pattern, and chromosomal mapping. *Genomics* 61: 326-329.
3. Perdomo, J., et al. 2000. Eos and pegasus, two members of the Ikaros family of proteins with distinct DNA binding activities. *J. Biol. Chem.* 275: 38347-38354.
4. Liippo, J., et al. 2001. Both normal and leukemic B lymphocytes express multiple isoforms of the human Aiolos gene. *Eur. J. Immunol.* 31: 3469-3474.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606221. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Sun, J., et al. 2003. Lack of the transcriptional coactivator OBF-1 prevents the development of systemic lupus erythematosus-like phenotypes in Aiolos mutant mice. *J. Immunol.* 170: 1699-1706.

CHROMOSOMAL LOCATION

Genetic locus: IKZF3 (human) mapping to 17q12.

SOURCE

Aiolos (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Aiolos of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160012 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Aiolos (S-14) is recommended for detection of Aiolos isoforms 1-6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Ikaros, Ikaros 4 or Ikaros 5.

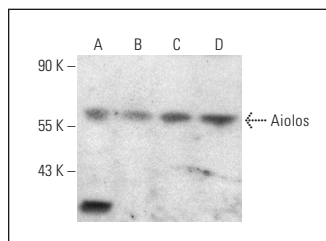
Aiolos (S-14) is also recommended for detection of Aiolos isoforms 1-6 in additional species, including equine.

Suitable for use as control antibody for Aiolos siRNA (h): sc-93817, Aiolos shRNA Plasmid (h): sc-93817-SH and Aiolos shRNA (h) Lentiviral Particles: sc-93817-V.

Molecular Weight of Aiolos: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat nuclear extract: sc-2132 or CCRF-CEM nuclear extract: sc-2146.

DATA



Aiolos (S-14): sc-160012. Western blot analysis of Aiolos expression in HeLa (A), Jurkat (B), Ramos (C) and CCRF-CEM (D) nuclear extracts.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **Aiolos (3H5-G7): sc-293421**, our highly recommended monoclonal alternative to Aiolos (S-14).