

Eos (L-12): sc-132308

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 hemopoietic-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. Eos, also known as zinc finger protein Ikaros 4, is a 585 amino acid transcriptional repressor. Localized to the nucleus, Eos may play a role in the development of the central and peripheral nervous systems. Eos self-associates, forms heterodimers with Ikaros family members and interacts with CtBP2, PU.1 and MITF to repress transcription of cathepsin K and TRAP promoters. Eos is expressed at low levels in kidney, thymus, liver and heart, and at high levels in skeletal muscle.

REFERENCES

- Honma, Y., et al. 1999. Eos: a novel member of the Ikaros gene family expressed predominantly in the developing nervous system. *FEBS Lett.* 447: 76-80.
- 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.
- Perdomo, J. and Crossley, M. 2002. The Ikaros family protein Eos associates with C-terminal-binding protein corepressors. *Eur. J. Biochem.* 269: 5885-5892.
- Koipally, J. and Georgopoulos, K. 2002. A molecular dissection of the repression circuitry of Ikaros. *J. Biol. Chem.* 277: 27697-27705.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606239. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Bao, J., et al. 2004. Activity-dependent transcription regulation of PSD-95 by neuregulin-1 and Eos. *Nat. Neurosci.* 7: 1250-1258.
- Ng, S.Y., et al. 2007. Ikaros and chromatin regulation in early hematopoiesis. *Curr. Opin. Immunol.* 19: 116-122.
- Sridharan, R. and Smale, S.T. 2007. Predominant interaction of both Ikaros and Helios with the NuRD complex in immature thymocytes. *J. Biol. Chem.* 282: 30227-30238.

CHROMOSOMAL LOCATION

Genetic locus: IKZF4 (human) mapping to 12q13.2; Ikaros (mouse) mapping to 10 D3.

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.

SOURCE

Eos (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Eos 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-132308 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-132308 X, 200 µg/0.1 ml.

APPLICATIONS

Eos (L-12) is recommended for detection of Eos isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 other Ikaros family members.

Suitable for use as control antibody for Eos siRNA (h): sc-95685, Eos siRNA (m): sc-146199, Eos shRNA Plasmid (h): sc-95685-SH, Eos shRNA Plasmid (m): sc-146199-SH, Eos shRNA (h) Lentiviral Particles: sc-95685-V and Eos shRNA (m) Lentiviral Particles: sc-146199-V.

Eos (L-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Eos: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

PROTOCOLS

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