

# Eos (E-13): sc-132307

## 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

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- Koipally, J. and Georgopoulos, K. 2002. A molecular dissection of the repression circuitry of Ikaros. *J. Biol. Chem.* 277: 27697-27705.
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- 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; Ikzf4 (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 (E-13) 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-132307 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-132307 X, 200 µg/0.1 ml.

## APPLICATIONS

Eos (E-13) 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), 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 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 (E-13) 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 or NIH/3T3 whole cell lysate: sc-2210.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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<sup>™</sup> Mounting Medium: sc-24941.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.