

Six3 (C-19): sc-49114

BACKGROUND

The Six proteins (sine oculis) are a family of homeodomain transcription factors that share a conserved DNA binding domain. Six3 is required for the specification and proliferation of the eye field in vertebrates and may be involved in some developmental disorders of the brain. Expression of Six3 is detected in human embryos as early as five to seven weeks of gestation, and is maintained in the eye throughout the entire period of fetal development. At 20 weeks of gestation, expression of Six3 in the human retina has been observed in ganglion cells and in cells of the inner nuclear layer. Six3 maps to human chromosome 2p21, between genetic markers D2S119 and D2S288. The map position of human Six3 overlaps the positions of two dominant disorders (holoprosencephaly type 2 and Malattia leventinese) with ocular phenotypes that have been assigned to this chromosomal region.

REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603714. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Del Bene, F., Tessmar-Raible, K. and Wittbrodt, J. 2004. Direct interaction of geminin and Six3 in eye development. *Nature* 427: 745-749.
4. Hisaoka, M., Okamoto, S., Yokoyama, K. and Hashimoto, H. 2004. Coexpression of Nor1 and Six3 proteins in extraskeletal myxoid chondrosarcomas without detectable NR4A3 fusion genes. *Cancer Genet. Cytogenet.* 152: 101-107.
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CHROMOSOMAL LOCATION

Genetic locus: SIX3 (human) mapping to 2p21; Six3 (mouse) mapping to 17 E4.

SOURCE

Six3 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Six3 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-49114 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Six3 (C-19) is recommended for detection of Six3 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).

Six3 (C-19) is also recommended for detection of Six3 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for Six3 siRNA (h): sc-38788, Six3 siRNA (m): sc-38789, Six3 shRNA Plasmid (h): sc-38788-SH, Six3 shRNA Plasmid (m): sc-38789-SH, Six3 shRNA (h) Lentiviral Particles: sc-38788-V and Six3 shRNA (m) Lentiviral Particles: sc-38789-V.

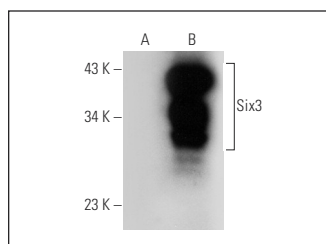
Molecular Weight of Six3: 37 kDa.

Positive Controls: Six3 (h): 293T Lysate: sc-173353.

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) 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™ Mounting Medium: sc-24941.

DATA



Six3 (C-19): sc-49114. Western blot analysis of Six3 expression in non-transfected: sc-117752 (A) and human Six3 transfected: sc-173353 (B) 293T whole cell lysates.

RESEARCH USE

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

MONOS
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Try **Six3 (A-1): sc-398797** or **Six3 (G-7): sc-398796**, our highly recommended monoclonal alternatives to Six3 (C-19).