

# ALX1 (3329D3a): sc-130642

## BACKGROUND

ALX homeobox proteins are members of the paired homeobox family which play a role in regulating cell development and pattern formation during embryonic stages. ALX1 (ALX homeobox protein 1), also known as CART-1 (cartilage homeoprotein-1), is a 326 amino acid protein specific to cervix and cartilage tissues. As well as having a homeobox domain, ALX1 also contains an OAR domain, which has been suggested to be important for DNA binding or protein-protein interactions and transactivation. First characterized from a rat chondrosarcoma tumor cell line, ALX1 is a homeobox transcription factor that regulates downstream target genes and has specifically shown to act as a transcriptional repressor for rat prolactin *in vivo*. Homozygous ALX1 deficient mice are born with acrania and meroanencephaly, suggesting ALX1 function in the development of the neural tube. It has also been suggested that ALX1 cooperates with ALX4 in limb development and craniofacial bone formation.

## REFERENCES

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- Zhao, Q., et al. 1996. Prenatal folic acid treatment suppresses acrania and meroanencephaly in mice mutant for the *Cart1* homeobox gene. *Nat. Genet.* 13: 275-283.
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- Qu, S., et al. 1999. Physical and genetic interactions between ALX4 and CART1. *Development* 126: 359-369.
- Iioka, T., et al. 2003. P300/CBP acts as a coactivator to cartilage homeoprotein-1 (CART-1), paired-like homeoprotein, through acetylation of the conserved lysine residue adjacent to the homeodomain. *J. Bone Miner. Res.* 18: 1419-1429.

## CHROMOSOMAL LOCATION

Genetic locus: ALX1 (human) mapping to 12q21.31.

## SOURCE

ALX1 (3329D3a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the N-terminus of ALX1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml PBS with < 0.1% sodium azide and 1.0% gelatin.

## APPLICATIONS

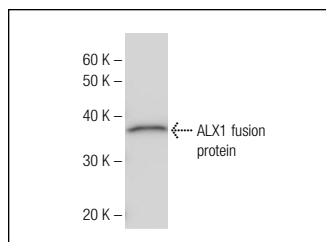
ALX1 (3329D3a) is recommended for detection of ALX1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for ALX1 siRNA (h): sc-96179, ALX1 shRNA Plasmid (h): sc-96179-SH and ALX1 shRNA (h) Lentiviral Particles: sc-96179-V.

Molecular Weight of ALX1: 37 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

## DATA



ALX1 (3329D3a): sc-130642. Western blot analysis of human recombinant ALX1 fusion protein.

## 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](http://www.scbt.com) for detailed protocols and support products.