

Cdx4 (N-15): sc-54165

BACKGROUND

Cdx1, Cdx2 and Cdx4 are members of the caudal-type homeobox family of genes, which are homologs of the *Drosophila* "caudal" gene required for anterior-posterior regional identity. The proteins encoded by these genes are transcription factors which play an important role in development by regulating the expression of Hox genes. Hox genes play a fundamental role in the development of the vertebrate central nervous system, heart, axial skeleton, limbs, gut, urogenital tract and external genitalia. Cdx4 is a major positive regulator of the expression of all Hox family members. Due to its critical role as a regulator, Cdx4 is a direct target of the canonical Wnt pathway. The loss of Cdx4 can result in the development of an expanded hind-brain, while the overexpression of Cdx4 may cause the hindbrain to lose its distinct segmental features and resemble the spinal cord.

REFERENCES

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- Horn, J.M., et al. 1995. A member of the caudal family of homeobox genes maps to the X-inactivation centre region of the mouse and human X chromosomes. *Hum. Mol. Genet.* 4: 1041-1047.
- Bonner, C.A., et al. 1996. Isolation, characterization, and precise physical localization of human CDX1, a caudal-type homeobox gene. *Genomics* 28: 206-211.
- Tabariès, S., et al. 2005. Cdx protein interaction with HoxA5 regulatory sequences contributes to HoxA5 regional expression along the axial skeleton. *Mol. Cell. Biol.* 25: 1389-1401.
- Gaunt, S.J., et al. 2005. Cdx4/LacZ and Cdx2/LacZ protein gradients formed by decay during gastrulation in the mouse. *Int. J. Dev. Biol.* 49: 901-908.
- Pilon, N., et al. 2005. Cdx4 is a direct target of the canonical Wnt pathway. *Dev. Biol.* 289: 55-63.

CHROMOSOMAL LOCATION

Genetic locus: CDX4 (human) mapping to Xp13.2; Cdx4 (mouse) mapping to X D.

SOURCE

Cdx4 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Cdx4 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-54165 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Cdx4 (N-15) is recommended for detection of Cdx4 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).

Suitable for use as control antibody for Cdx4 siRNA (h): sc-72316, Cdx4 siRNA (m): sc-72317, Cdx4 shRNA Plasmid (h): sc-72316-SH, Cdx4 shRNA Plasmid (m): sc-72317-SH, Cdx4 shRNA (h) Lentiviral Particles: sc-72316-V and Cdx4 shRNA (m) Lentiviral Particles: sc-72317-V.

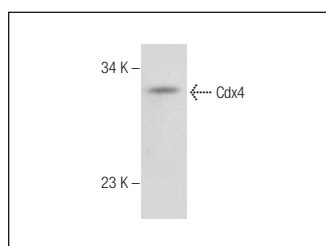
Molecular Weight of Cdx4: 30 kDa.

Positive Controls: RAW 264.7 nuclear extract: sc-24961 or HeLa whole cell lysate: sc-2200.

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



Cdx4 (N-15): sc-54165. Western blot analysis of Cdx4 expression in RAW 264.7 nuclear extract.

STORAGE

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



Try **Cdx4 (H-4): sc-374471** or **Cdx4 (C-7): sc-374472**, our highly recommended monoclonal alternatives to Cdx4 (N-15).