

Cdx2 (C-20): sc-19478

BACKGROUND

The members of the murine Cdx family (Cdx1, Cdx2, and Cdx4) are members of the caudal-type homeobox family of genes, which are homologues of the *Drosophila* "caudal" gene required for anterior-posterior regional identity. The intestine-specific transcription factors Cdx1 and Cdx2 are candidate genes for directing intestinal development, differentiation, proliferation and maintenance of the intestinal phenotype. The relative expression of Cdx1 to Cdx2 protein may be important in the anterior to posterior patterning of the intestinal epithelium and in defining patterns of proliferation and differentiation along the crypt-villus axis. Expression of the Cdx1 homeobox gene in epithelial intestinal cells promotes cellular growth and differentiation. Cdx1 positively regulates its own expression. Cdx1 and Cdx2 are expressed in the small intestine and colon of fetus and adult. A decrease in human Cdx1 and/or Cdx2 expression is associated with colorectal tumorigenesis. Both Cdx1 and Cdx2 genes must be expressed to reduce tumorigenic potential, to increase sensitivity to apoptosis, and to reduce cell migration, suggesting that the two genes control the normal phenotype by independent pathways. The human Cdx1 gene maps to chromosome 5q32 and encodes a 265-amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: CDX2 (human) mapping to 13q12.2; Cdx2 (mouse) mapping to 5 G3.

SOURCE

Cdx2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Cdx2 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-19478 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cdx2 (C-20) is recommended for detection of Cdx2 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).

Cdx2 (C-20) is also recommended for detection of Cdx2 in additional species, including equine and canine.

Suitable for use as control antibody for Cdx2 siRNA (h): sc-43680, Cdx2 siRNA (m): sc-142243, Cdx2 shRNA Plasmid (h): sc-43680-SH, Cdx2 shRNA Plasmid (m): sc-142243-SH, Cdx2 shRNA (h) Lentiviral Particles: sc-43680-V and Cdx2 shRNA (m) Lentiviral Particles: sc-142243-V.

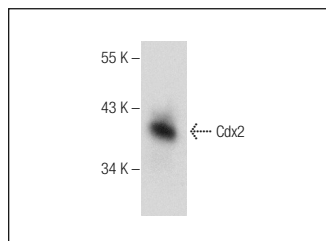
Molecular Weight of Cdx2: 40 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, HeLa whole cell lysate: sc-2200 or MDA-MB-231 cell lysate: sc-2232.

STORAGE

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

DATA



Cdx2 (C-20): sc-19478. Western blot analysis of Cdx2 expression in COLO 320DM whole cell lysate.

SELECT PRODUCT CITATIONS

- González, S., et al. 2010. Establishment of mouse embryonic stem cells from isolated blastomeres and whole embryos using three derivation methods. *J. Assist. Reprod. Genet.* 27: 671-682.
- Januário, D.A., et al. 2010. Biological effects and dose-response assessment of diesel exhaust particles on *in vitro* early embryo development in mice. *Toxicol. Sci.* 117: 200-208.
- Yamashita, R., et al. 2011. Genome-wide characterization of transcriptional start sites in humans by integrative transcriptome analysis. *Genome Res.* 21: 775-789.
- Soma, M., et al. 2012. Preferential emergence of cell types expressing markers for primitive endoderm lineages in mouse embryonic stem cells expressing exogenous EGAM1 homeoprotein. *J. Biosci. Bioeng.* 114: 342-346.

RESEARCH USE

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

PROTOCOLS

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

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Try **Cdx2 (E-1): sc-393572** or **Cdx2 (B-3): sc-166830**, our highly recommended monoclonal alternatives to Cdx2 (C-20).