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# Cdx2 (h2): 293T Lysate: sc-172943

## 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 5q33.1 and encodes a 265-amino acid protein.

## REFERENCES

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3. Mallo, G.V., Soubeyran, P., Lissitzky, J.C., Andre, F., Farnarier, C., Marvaldi, J., Dagorn, J.C. and Iovanna, J.L. 1998. Expression of the Cdx1 and Cdx2 homeotic genes leads to reduced malignancy in colon cancer-derived cells. *J. Biol. Chem.* 273: 14030-14036.
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7. Soubeyran, P., Haglund, K., Garcia, S., Barth, B.U., Iovanna, J. and Dikic, I. 2001. Homeobox gene Cdx1 regulates Ras, Rho and PI3 kinase pathways leading to transformation and tumorigenesis of intestinal epithelial cells. *Oncogene* 20: 4180-4187.

## CHROMOSOMAL LOCATION

Genetic locus: CDX2 (human) mapping to 13q12.2.

## PRODUCT

Cdx2 (h2): 293T Lysate represents a lysate of human Cdx2 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

Cdx2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cdx2 antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.