

## Product Information

### Anti-Cdx1

Developed in Rabbit, Affinity isolated antibody

Product Number **C5741**

### Product Description

Anti-Cdx1 is developed in rabbit using as immunogen a synthetic peptide, FQNRRAKERKVNKKKQQ corresponding to human Cdx1 and Cdx2 (amino acids 202-218) conjugated to BSA. The antibody is affinity-purified using the immunizing peptide immobilized on resin.

The antibody specifically recognizes homeodomain proteins Cdx1 and Cdx2 by immunoblotting (28 kDa and 33 kDa, respectively) and immunohistochemistry. The antibody recognizes human and rodent Cdx1 and Cdx2. Other species reactivity has not been confirmed.

Cdx1 (Caudal-type homeobox protein 1) and Cdx2 (Caudal-type homeobox protein 2, CDX-3) are members of the caudal homeobox family of transcription factors, containing one homeobox domain.<sup>1-5</sup> Cdx1 and Cdx2 are involved in the transcriptional regulation of multiple genes expressed in intestinal epithelium with functions ranging from early differentiation to maintenance of the intestinal lining. They may also have a role in the terminal differentiation of the intestine.

### Reagent

The antibody is provided as affinity isolated antibody in a 50% ammonium sulfate suspension in phosphate buffered saline, containing no additional preservatives.

### Preparation Instructions

#### Method 1 for immunostaining and immunoblotting (Western blot)

1. Carefully resuspend antibody pellet to uniformity.
2. Remove a fixed amount of suspension and dissolve 1:10 in PBS or TBS to yield a 100 µg/ml solution.

#### Method 2 for immunoprecipitation, supershift, immunostaining and immunoblotting (Western blot)

1. Pellet antibodies at 10,000 – 15,000 x g for 10 minutes at 2 to 8 °C using a microcentrifuge.

2. Carefully remove as much supernatant as possible. It is not necessary to remove all the ammonium sulfate solution; a small residual amount will not effect the antibody preparation. Dissolve the pellet (antibody) in small volume (100 µL) of PBS (or TBS) at final concentration of 1 mg/ml (100 µg/100 µl). Do not allow the pellet to dry out. This can cause loss of activity. Gently allow pellet to dissolve at least 1 hour before use. Do not vortex. Mix by finger-tapping or gentle stirring.

### Notes:

- Reconstituted antibody may be stored at 2 to 8 °C for up to one month. Addition of a preservative (15 mM sodium azide) may be necessary.
- For extended storage, add an equal volume of high purity glycerol, to a final concentration of 50% and BSA to a final concentration of 1% and store at –20 °C.
- During shipment, small volumes will occasionally become entrapped in the seal of the product vial. We recommend briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.

### Storage/Stability

Store ammonium sulfate suspension at 2-8 °C for up to one month.

For extended storage, freeze in working aliquots. Reconstituted and diluted antiserum should be stored in aliquots at –20 °C.

### Product Profile

Recommended dilutions are 1:200 to 1:1,000 for immunoblotting and immunohistochemistry.

Note: In order to obtain the best results and assay sensitivity in various techniques and preparations, we recommend determining optimal working dilutions by titration.

## References

1. Mallo, G.V., et al., Molecular cloning, sequencing and expression of the mRNA encoding human Cdx1 and Cdx2 homeobox. Down-regulation of Cdx1 and Cdx2 mRNA expression during colorectal carcinogenesis. *Int. J. Cancer*, **74**, 35-44 (1997).
2. Bonner, C.A., et al., Isolation, characterization, and precise physical localization of human CDX1, a caudal-type homeobox gene. *Genomics*, **28**, 206-211 (1995).
3. Drummond, F.J., et al., Cloning and chromosome assignment of the human CDX2 gene. *Ann. Hum. Genet.*, **61**, 393-400 (1997).
4. Tanizawa, Y., et al., Isolation, characterization, and linkage mapping of the human caudal-type homeobox gene, CDX2/3. EMBL GenBank DDB, submitted June 1997.
5. Sivagnanasundaram, S., et al., The homeobox gene CDX2 in colorectal carcinoma: a genetic analysis. *Br. J. Cancer*, **84**, 218-225 (2001).

KAA 11/04

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.