

Datasheet for ABIN967663
anti-CDX2 antibody



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Overview

Quantity:	0.1 mg
Target:	CDX2
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CDX2 antibody is un-conjugated
Application:	Western Blotting (WB), BioImaging (BI)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human CDX-2 Recombinant Protein
Clone:	M39-711
Isotype:	IgG1 kappa
Characteristics:	<ol style="list-style-type: none"> 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Triton is a trademark of the Dow Chemical Company. 5. This antibody has been developed and certified for the bioimaging application. However, a routine bioimaging test is not performed on every lot. Researchers are encouraged to titrate the

Product Details

reagent for optimal performance.

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	CDX2
Alternative Name:	CDX-2 (CDX2 Products)
Background:	<p>The M39-711 monoclonal antibody reacts with caudal-type homeobox transcription factor 2 (CDX-2). In embryonic development, CDX-2 is first expressed in the outer layer of the morula and later in the trophoblast, but not in embryonic stem cells. Along with Oct3/4, it is involved in the segregation of the trophoectoderm lineage from the inner cell mass. In the adult, CDX-2 expression is limited to the mucosa of the small and large intestines, where it regulates the synthesis of several intestine-specific proteins. Loss of CDX-2 expression is observed in some colorectal carcinomas, while gain of CDX-2 expression has been observed in gastric tumors and acute myeloid leukemias.</p> <p>Synonyms: CDX2, CDX3, CDX-3</p>
Molecular Weight:	38-40 kDa
Pathways:	Peptide Hormone Metabolism , Stem Cell Maintenance

Application Details

Application Notes:	<p>Bioimaging</p> <ol style="list-style-type: none">1. Seed the cells in appropriate culture medium at an appropriate cell density in an 96-well Imaging Plate , and culture overnight to 48 hours.2. Remove the culture medium from the wells, wash (one to two times) with 100 myl of 1× PBS.3. Fix the cells by adding 100 µl of fresh 3.7% Formaldehyde in PBS or fixation buffer to each well and incubating for 10 minutes at room temperature (RT).4. Remove the fixative from the wells, and wash the wells (one to two times) with 100 myl of 1× PBS.5. Permeabilize the cells using either cold methanol (a), Triton™ X-100 (b) or Saponin (c): a. Add 100 µl of -20°C 90% methanol to each well and incubate for 5 minutes at RT. b. Add 100 µl of 0.1% Triton™ X-100 to each well and incubate for 5 minutes at RT. c. Add 100 µl of 1× Perm/Wash buffer to each well and incubate for 15 to 30 minutes at RT. Continue to use 1×
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Perm/Wash buffer for all subsequent wash and dilutions steps.

6. Remove the permeabilization buffer from the wells, and wash one to two times with 100 µl of appropriate buffer (either 1× PBS or 1× Perm/Wash buffer, see step 5.c.).

7. Optional blocking step: Remove the wash buffers and block the cells by adding 100 µl of blocking buffer or 3% FBS in appropriate dilution buffer to each well and incubating for 15 to 30 minutes at RT.

8. Dilute the antibody to its optimal working concentration in appropriate dilution buffer. Titrate purified (unconjugated) antibodies and second-step reagents to determine the optimal concentration. If using a Bioimaging Certified antibody conjugate, dilute it 1:10.

9. Add 50 µl of diluted antibody per well and incubate for 60 minutes at RT. Incubate in the dark if using fluorescently labeled antibodies.

10. Remove the antibody, and wash the wells three times with 100 µl of wash buffer. An optional detergent wash (100 µl of 0.05% Tween in 1× PBS) can be included prior to the regular wash steps.

11. If the antibody being used is fluorescently labeled then move to step 12. Otherwise, if using a purified unlabeled antibody, repeat steps 8 to 10 with a fluorescently labeled second-step reagent to detect the purified antibody.

12. After the final wash, counter-stain the nuclei by adding 100 µl of a 2 mg/ml solution of Hoechst 33342 in 1× PBS to each well at least 15 minutes before imaging.

13. View and analyze the cells on an appropriate imaging instrument.

Comment:	Related Products: ABIN967389
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
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Concentration:	0.5 mg/mL
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Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
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Preservative:	Sodium azide
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Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
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Storage:	4 °C
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Storage Comment:	Store undiluted at 4°C.
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Publications

Product cited in: Scholl, Bansal, Döhner, Eiwen, Huntly, Lee, Rücker, Schlenk, Bullinger, Döhner, Gilliland, Fröhling: "The homeobox gene CDX2 is aberrantly expressed in most cases of acute myeloid leukemia and promotes leukemogenesis." in: **The Journal of clinical investigation**, Vol. 117, Issue 4, pp. 1037-48, (2007) ([PubMed](#)).

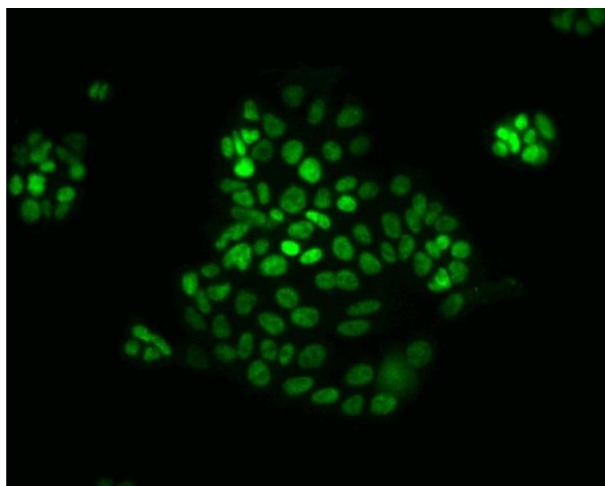
Tsukamoto, Mizoshita, Tatematsu: "Gastric-and-intestinal mixed-type intestinal metaplasia: aberrant expression of transcription factors and stem cell intestinalization." in: **Gastric cancer : official journal of the International Gastric Cancer Association and the Japanese Gastric Cancer Association**, Vol. 9, Issue 3, pp. 156-66, (2006) ([PubMed](#)).

Ralston, Rossant: "Genetic regulation of stem cell origins in the mouse embryo." in: **Clinical genetics**, Vol. 68, Issue 2, pp. 106-12, (2005) ([PubMed](#)).

Rawat, Cusan, Deshpande, Hiddemann, Quintanilla-Martinez, Humphries, Bohlander, Feuring-Buske, Buske: "Ectopic expression of the homeobox gene Cdx2 is the transforming event in a mouse model of t(12;13)(p13;q12) acute myeloid leukemia." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 101, Issue 3, pp. 817-22, (2004) ([PubMed](#)).

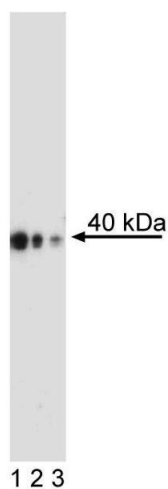
Hinoi, Loda, Fearon: "Silencing of CDX2 expression in colon cancer via a dominant repression pathway." in: **The Journal of biological chemistry**, Vol. 278, Issue 45, pp. 44608-16, (2003) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



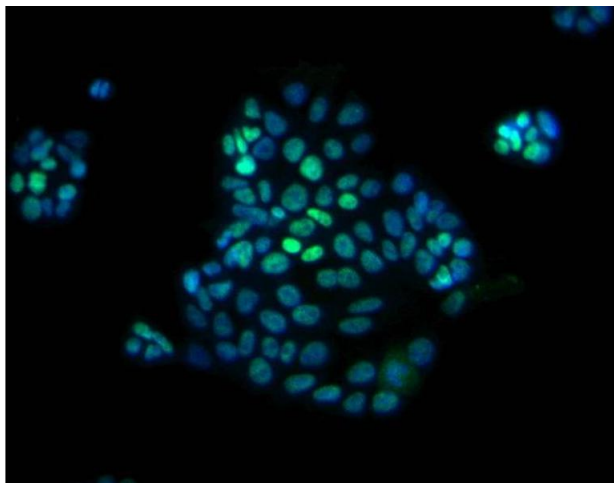
Immunofluorescence

Image 1. Immunofluorescent staining of human colorectal adenocarcinoma. DLD-1 cells (ATCC CCL-221) were seeded in a 96-well imaging plate at ~10,000 cells per well. After overnight incubation, the cells were fixed, permeabilized with Triton™ X-100, and stained with Purified Mouse anti-CDX-2 (pseudocolored green) according to the Recommended Assay Procedure. The second-step reagent was Alexa Fluor® 555 goat anti-mouse Ig (Invitrogen), and counterstaining was with Hoechst 33342 (pseudocolored blue). The left image shows CDX-2 alone, and the right image shows CDX-2 merged with Hoechst staining. Images were captured on a BD Pathway™ 435 confocal bioimager using a 20x objective and merged using BD AttoVision™ software. This antibody also worked with both the alcohol and saponin fix/perm protocols.



Western Blotting

Image 2. Western Blot analysis of CDX-2 in human colorectal adenocarcinoma. Lysate from DLD-1 cells (ATCC CCL-221) was probed with Purified Mouse anti-CDX-2 monoclonal antibody at titrations of 0.5 (lane 1), 0.25 (lane 2), and 0.125 µg/ml (lane 3). CDX-2 is identified as a band of 38-40 kDa.



Immunofluorescence

Image 3. Immunofluorescent staining of human colorectal adenocarcinoma

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN967663.