**Product datasheet**

**Anti-CDX2 antibody [EPR2764Y] ab76541**

**Overview**

**Product name**: Anti-CDX2 antibody [EPR2764Y]

**Description**: Rabbit monoclonal [EPR2764Y] to CDX2

**Host species**: Rabbit

**Tested applications**: Suitable for: WB, Flow Cyt, ICC/IF, IHC-P

**Species reactivity**: Reacts with: Mouse, Rat, Rabbit, Human

**Immunogen**: Synthetic peptide within Human CDX2 aa 1-100 (N terminal). The exact sequence is proprietary. Database link: Q99626

**Positive control**: Purchase matching WB positive control: Recombinant Human CDX2 protein

**ICC/IF**: Human colon and SW480 cells; Trophoblast stem (TS) cells. WB: Caco-2, HT-29, human, mouse and rat colon cancer and human small intestine lysates. IHC-P: Human colon, gastric adenocarcinoma, colonic adenocarcinoma, intestinal tissues; Rat and mouse colon tissues. Flow Cyt: HT-29 cells.

**General notes**: This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

**Properties**
Form: Liquid


Dissociation constant ($K_D$): $K_D = 1.00 \times 10^{-11}$ M

Storage buffer:
- pH: 7.20
- Preservative: 0.01% Sodium azide
- Constituents: PBS, 40% Glycerol, 0.05% BSA

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EPR2764Y

Isotype: IgG

Applications:

Our Abpromise guarantee covers the use of ab76541 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>1/10000. Detects a band of approximately 40 kDa (predicted molecular weight: 34 kDa). For unpurified use at 1/1000 - 1/5000</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>★★★★★</td>
<td>1/80. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/40</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>1/500. For unpurified use at 1/100 - 1/250</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. For unpurified use at 1/250 - 1/500 See IHC antigen retrieval protocols.</td>
</tr>
</tbody>
</table>

Target:

Function: Involved in the transcriptional regulation of multiple genes expressed in the intestinal epithelium. Important in broad range of functions from early differentiation to maintenance of the intestinal epithelial lining of both the small and large intestine.

Sequence similarities: Belongs to the Caudal homeobox family.
Contains 1 homeobox DNA-binding domain.

**Post-translational modifications**
Phosphorylation of Ser-60 mediates the transactivation capacity.

**Cellular localization**
Nucleus.

### Images

**Immunocytochemistry/Immunofluorescence - Anti-CDX2 antibody [EPR2764Y] (ab76541)**

Immunocytochemistry/Immunofluorescence analysis of SW480 (Human colorectal adenocarcinoma epithelial cell) cells labeling CDX2 with Purified ab76541 at 1:500 dilution (1.5 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDX2 antibody [EPR2764Y] (ab76541)**

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling CDX2 with Purified ab76541 at 1:1000 dilution (0.8 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Goat Anti-Rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
Flow Cytometry analysis of HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labeling CDX2 with Purified ab76541 at 1:80 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

**All lanes**: Anti-CDX2 antibody [EPR2764Y] (ab76541) at 1/10000 dilution (Purified)

- **Lane 1**: Caco-2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysates
- **Lane 2**: Human colon cancer lysates
- **Lane 3**: Rat colon lysates
- **Lane 4**: Mouse colon lysates

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/10000 dilution

- **Predicted band size**: 34 kDa
- **Observed band size**: 40 kDa

**why is the actual band size different from the predicted?**
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse colon tissue sections labeling CDX2 with Purified ab76541 at 1:1000 dilution (0.8 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Goat Anti-Rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat colon tissue sections labeling CDX2 with Purified ab76541 at 1:1000 dilution (0.8 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Goat Anti-Rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Derivation of TS cells in CDM/FAXY.

(Panel e)

Immunofluorescence staining of TS (trophoblast stem) cells staining CDX2 using unpurified ab76541 on a fibronectin-coated plastic-bottom dish.

Cells were grown for 2 days on a fibronectin-coated plastic-bottom dish, fixed with 4% paraformaldehyde/phosphate buffer for 1 hour at room temperature, and then washed three times with 0.1% Triton
X100/PBS. Cells were blocked with blocking solution (0.5% normal goat serum in PBS +0.1% Triton X-100) and incubated overnight at 4°C with primary antibody diluted in blocking solution. Cells were then washed three times with PBST, incubated with Alexa Fluor®568–conjugated goat anti–rabbit IgG antibody for 1 hour at room temperature, washed in PBST, counterstained with DAPI 1 µg/ml, and imaged. ab76541 was used at 1:500 dilution.

Scale bar, 100 µm.

Unpurified ab76541 staining CDX2 in human colon cells by ICC/IF (Immunocytochemistry/immunofluorescence).

Cells were fixed with paraformaldehyde and blocked with 1% BSA for 1 hour at room temperature. Samples were incubated with primary antibody (1/500) for 2 hours. An Alexa Fluor®488-conjugated goat anti-rabbit IgG polyclonal (1/1000) was used as the secondary antibody.

Lane 1 : Anti-CDX2 antibody [EPR2764Y] (ab76541) at 1/1000 dilution (Unpurified)
Lanes 2-3 : Anti-CDX2 antibody [EPR2764Y] (ab76541) at 1/5000 dilution (Unpurified)

Lane 1 : HT-29 (Human colorectal adenocarcinoma cell line) lysate
Lane 2 : Colon cancer lysate
Lane 3 : Human small intestine lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP labeled goat anti-rabbit at 1/2000 dilution

Predicted band size: 34 kDa
Observed band size: 40 kDa why is the actual band size different from the predicted?
Unpurified ab76541 staining CDX2 in human intestinal tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).

Tissue was fixed with paraformaldehyde and blocked with 5% BSA for 1 hour at 25°C; antigen retrieval was by heat mediation. Samples were incubated with primary antibody (1/100 in PBS containing 5% BSA) for 18 hours at 4°C. An HRP-conjugated goat anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.

Unpurified ab76541 showing positive staining in normal colon tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Unpurified ab76541, at 1/250 dilution, staining CDX2 in paraffin-embedded human gastric adenocarcinoma tissue, by immunohistochemistry. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.
Unpurified ab76541 showing positive staining in colonic adenocarcinoma tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Unpurified ab76541 showing **negative staining** in skeletal muscle tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.
Unpurified ab76541 showing **negative staining** in normal kidney tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Unpurified ab76541 showing **negative staining** in normal brain tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Unpurified ab76541 showing **negative staining** in normal brain tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.
Equilibrium disassociation constant ($K_D$)

Learn more about $K_D$

Click here to learn more about $K_D$

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"