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CDX2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6131A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q99626
Other Accession	P43241
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB01821
Calculated MW	33520
Antigen Region	1-30

Additional Information

Gene ID	1045
Other Names	Homeobox protein CDX-2, CDX-3, Caudal-type homeobox protein 2, CDX2, CDX3
Target/Specificity	This CDX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human CDX2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDX2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDX2
Synonyms	CDX3

Function	Transcription factor which regulates the transcription of multiple genes expressed in the intestinal epithelium (By similarity). Binds to the promoter of the intestinal sucrase-isomaltase SI and activates SI transcription (By similarity). Binds to the DNA sequence 5'-ATAAAAACTTAT-3' in the promoter region of VDR and activates VDR transcription (By similarity). Binds to and activates transcription of LPH (By similarity). Activates transcription of CLDN2 and intestinal mucin MUC2 (By similarity). Binds to the 5'-AATTTTTTACAACACCT-3' DNA sequence in the promoter region of CA1 and activates CA1 transcription (By similarity). Important in broad range of functions from early differentiation to maintenance of the intestinal epithelial lining of both the small and large intestine. Binds preferentially to methylated DNA (PubMed:28473536).
Cellular Location	Nucleus {ECO:0000250|UniProtKB:P43241}.
Tissue Location	Detected in small intestine, colon and pancreas.

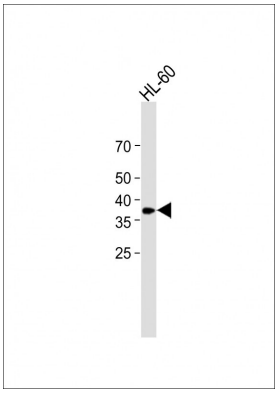
Background

The caudal type homeo box transcription factors 1 (CDX1) and 2 (CDX2) are candidates for directing intestinal development, differentiation, and maintenance of the intestinal phenotype. CDX1 and CDX2 expression is widely present in the human intestinal and colonic mucosae, but not in the gastric mucosa, suggesting a possible role in the terminal differentiation of the intestine. Increased CDX2 expression is associated with chronic atrophic gastritis. Detectable expression of CDX2 precedes expression of CDX1 during the progression of intestinal metaplasia, thus expression of CDX2 may trigger the initiation and development of intestinal metaplasia. Markedly reduced or absent CDX2 expression was noted by immunohistochemistry in 13 of 15 (87%) large cell minimally differentiated carcinomas (LCMDCs), whereas only 1 of the 25 (4%) differentiated adenocarcinomas (DACs) showed reduced CDX2 expression. Thus, a significant decrease in human CDX1 and/or CDX2 expression may be associated with colorectal tumorigenesis.

References

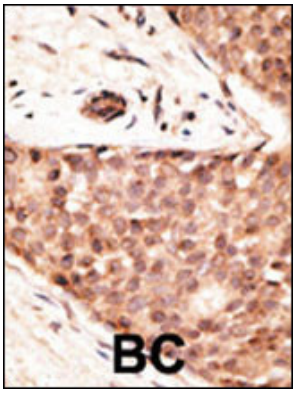
Phillips, R.W., et al., Am. J. Surg. Pathol. 27(11):1442-1447 (2003).
Bai, Y.Q., et al., Oncogene 22(39):7942-7949 (2003).
Yamamoto, H., et al., Biochem. Biophys. Res. Commun. 300(4):813-818 (2003).
Eda, A., et al., J. Gastroenterol. 37(2):94-100 (2002).
Moucadel, V., et al., Biochem. Biophys. Res. Commun. 297(3):607-615 (2002).

Images



All lanes: Anti-CDX2 Antibody (N-term) at 1:500 dilution + HL-60 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 37 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was



peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.