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CDX2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1882a

Product Information

Application	WB, E
Primary Accession	Q99626
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2F12A6
Isotype	IgG1
Calculated MW	33520
Description	This gene is a member of the caudal-related homeobox transcription factor gene family. The encoded protein is a major regulator of intestine-specific genes involved in cell growth an differentiation. This protein also plays a role in early embryonic development of the intestinal tract. Aberrant expression of this gene is associated with intestinal inflammation and tumorigenesis.
Immunogen	Purified recombinant fragment of human CDX2 (AA: 176-303) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	1045
Other Names	Homeobox protein CDX-2, CDX-3, Caudal-type homeobox protein 2, CDX2, CDX3
Dilution	WB~~1/500 - 1/2000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDX2 Antibody 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 protein encoded by this gene is a DNA-binding transcription factor that activates many muscle-specific, growth factor-induced, and stress-induced genes. The encoded protein can act as a homodimer or as a heterodimer and is involved in several cellular processes, including muscle development, neuronal differentiation, cell growth control, and apoptosis. Defects in this gene could be a cause of autosomal dominant coronary artery disease 1 with myocardial infarction (ADCAD1). Several transcript variants encoding different isoforms have been found for this gene. ;

References

1. Tumour Biol. 2012 Dec;33(6):2185-8. 2. Cancer Biol Ther. 2012 Oct;13(12):1152-7.

Images

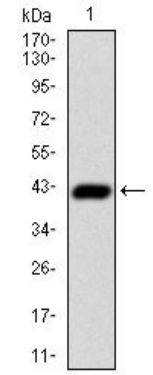

Figure 1: Western blot analysis using CDX2 mAb against human CDX2 (AA: 176-303) recombinant protein. (Expected MW is 40.1 kDa)

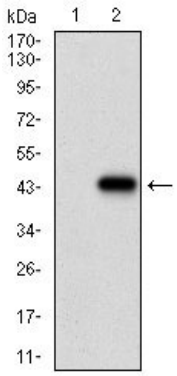

Figure 2: Western blot analysis using CDX2 mAb against HEK293 (1) and CDX2 (AA: 176-303)-hIgGFc transfected HEK293 (2) cell lysate.