abcam

Product datasheet

Anti-PDX1 antibody [EPR3358(2)] ab134150

ועלשעבע RabMAb

★★★★★ 1 Abreviews 12 References 画像数 11

製品の概要

製品名 Anti-PDX1 antibody [EPR3358(2)]

製品の詳細 Rabbit monoclonal [EPR3358(2)] to PDX1

由来種 Rabbit

特異性 The mouse recommendation is based on the WB results. We do not guarantee IHC-P for mouse.

アプリケーション 適用あり: WB, IHC-P, ICC/IF

種交差性 交差種: Mouse, Human

免疫原 Synthetic peptide within Human PDX1 (C terminal). The exact sequence is proprietary.

Database link: P52945

ポジティブ・コントロール CACO-2 and Beta-TC-6 cell lysates, Human pancreas & duodenum tissue

特記事項 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**.

Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle.

 $K_D = 4.60 \times 10^{-11} M$ 解離定数(Kn値)

10-11

Learn more about K_D

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 40% Glycerol, 0.05% BSA, 59% PBS

精製度 Protein A purified

ポリ/モノ モノクローナル **ウローン名** EPR3358(2)

アイソタイプ IgG

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab134150の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項 |
|----------|-----------|--|
| WB | | 1/1000. Predicted molecular weight: 30 kDa. |
| IHC-P | ****(1) | 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols. For unpurified use at 1/350. |
| ICC/IF | | Use at an assay dependent concentration. |

ターゲット情報

機能

Activates insulin, somatostatin, glucokinase, islet amyloid polypeptide and glucose transporter type 2 gene transcription. Particularly involved in glucose-dependent regulation of insulin gene transcription. Binds preferentially the DNA motif 5'-[CT]TAAT[TG]-3'. During development, specifies the early pancreatic epithelium, permitting its proliferation, branching and subsequent differentiation. At adult stage, required for maintaining the hormone-producing phenotype of the beta-cell.

組織特異性

Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-betacells, at low levels in acinar cells).

関連疾患

Defects in PDX1 are a cause of pancreatic agenesis (PAC) [MIM:260370]. This autosomal recessive disorder is characterized by absence or hypoplasia of pancreas, leading to early-onset insulin-dependent diabetes mellitus. This was found in a frameshift mutation that produces a truncated protein and results in a second initiation that produces a second protein that act as a dominant negative mutant.

Defects in PDX1 are a cause of non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.

Defects in PDX1 are the cause of maturity-onset diabetes of the young type 4 (MODY4) [MIM:606392]; also symbolized MODY-4. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25

years of age), a primary defect in insulin secretion and frequent insulin-independence at the

beginning of the disease.

配列類似性 Belongs to the Antp homeobox family. IPF1/XIHbox-8 subfamily.

Contains 1 homeobox DNA-binding domain.

ドメイン The Antp-type hexapeptide mediates heterodimerization with PBX on a regulatory element of the

somatostatin promoter.

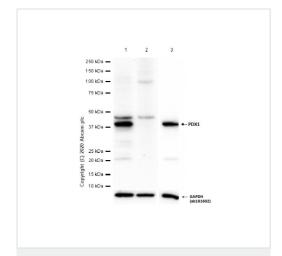
The homeodomain, which contains the nuclear localization signal, not only mediates DNA-binding,

but also acts as a protein-protein interaction domain for TCF3(E47), NEUROD1 and HMG-I(Y).

翻訳後修飾 Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration.

細胞内局在 Nucleus.

画像



Western blot - Anti-PDX1 antibody [EPR3358(2)] (ab134150)

All lanes : Anti-PDX1 antibody [EPR3358(2)] (ab134150) at 1/1000 dilution

Lane 1 : Caco-2 (Human colorectal adenocarcinoma epithelial cell)

whole cell lysate

Lane 2: BxPC-3 (Human pancreas adenocarcinoma epithelial cell)

whole cell lysate

Lane 3: Beta-TC-6 (Mouse pancreas insulinoma beta cell) whole

cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

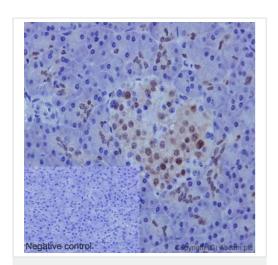
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 30 kDa **Observed band size:** 40 kDa

The expression profile observed in BxPC-3 is consistent with the

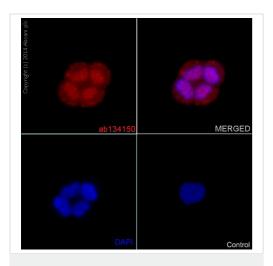
literature (PMID: 12947327). Negative control: BxPC-3

(PMID: 12947327)



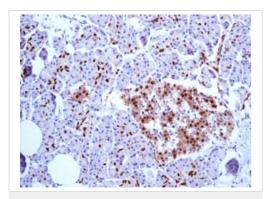
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody
[EPR3358(2)] (ab134150)

ab134150 staining PDX1 in Human pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffinembedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/500). An undiluted HRP-conjugated anti-rabbit IgG was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-PDX1 antibody [EPR3358(2)] (ab134150)

ab134150 staining PDX1 in the BXPC-3 cell line by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde. Samples were incubated with primary antibody (1/150). An Alexa Fluor[®]555-conjugated Goat anti-rabbit IgG (1/500) was used as the secondary antibody. Nuclei were counterstained with DAPI.

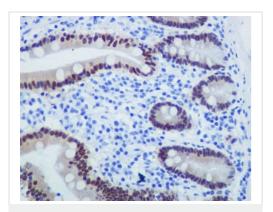


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody

[EPR3358(2)] (ab134150)

Immunohistochemical analysis of paraffin embedded Human pancreas tissue labelled with ab134150, unpurified, at 1/1000 dilution

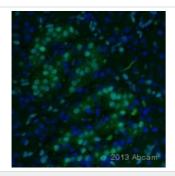
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody
[EPR3358(2)] (ab134150)

Immunohistochemical analysis of paraffin embedded Human duodenum tissue labelled with ab134150, unpurified, at 1/1000 dilution.

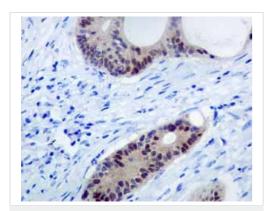
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody
[EPR3358(2)] (ab134150)

This image is courtesy of an anonymous Abreview

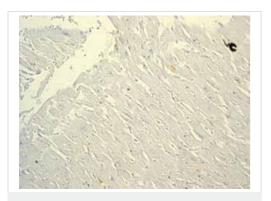
ab134150, unpurified, staining PDX1 in Human pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehydefixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 5% serum for 1 hour at 24°C; antigen retrieval was by heat mediation in 10mM sodium citrate, pH 6.0. Samples were incubated with primary antibody (1/1000 in 2% BSA) for 16 hours at 4°C. An Alexa Fluor® 488-conjugated Donkey anti-rabbit IgG polyclonal (1/400) was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody
[EPR3358(2)] (ab134150)

Immunohistochemical analysis of paraffin embedded Human Colonic adenocarcinoma tissue using ab134150, unpurified, showing +ve staining.

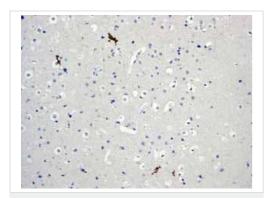
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody
[EPR3358(2)] (ab134150)

Immunohistochemical analysis of paraffin embedded Human Heart muscles tissue using ab134150, unpurified, showing -ve staining.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

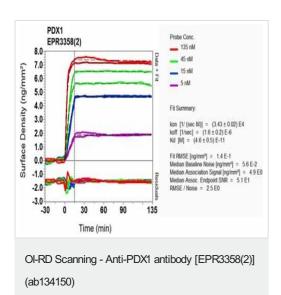


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PDX1 antibody

[EPR3358(2)] (ab134150)

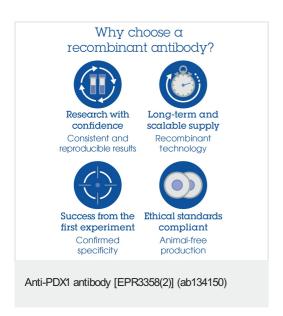
Immunohistochemical analysis of paraffin embedded normal Human Normal brain tissue using ab134150, unpurified, showing -ve staining.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Equilibrium disassociation constant (K_D) Learn more about K_D

Click here to learn more about KD



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