Product name: Anti-nkx6.1 antibody [EPR20405] ab221549

Description: Rabbit monoclonal [EPR20405] to nkx6.1

Host species: Rabbit

Tested applications: Suitable for: IHC-Fr, WB, IHC-P

Species reactivity: Reacts with: Mouse, Human

Immunogen: Recombinant fragment within Human nkx6.1 aa 1-250. The exact sequence is proprietary. Database link: P78426

Positive control: WB: Human fetal pancreas lysate. IHC-P: Human pancreas and pancreatic neuroendocrine neoplasm tissues; Mouse pancreas tissue. IHC-Fr: Mouse pancreas tissue.

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.

Form: Liquid


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

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EPR20405

Isotype: IgG
Function
Transcription factor which binds to specific A/T-rich DNA sequences in the promoter regions of a number of genes. Involved in transcriptional regulation in islet beta cells. Binds to the insulin promoter and is involved in regulation of the insulin gene. Together with NKX2-2 and IRX3 acts to restrict the generation of motor neurons to the appropriate region of the neural tube. Belongs to the class II proteins of neuronal progenitor factors, which are induced by SHH signals.

Tissue specificity
Pancreatic beta cells.

Sequence similarities
Contains 1 homeobox DNA-binding domain.

Domain
The C-terminal domain contributes to sequence-specific DNA-binding.

Cellular localization
Nucleus.

Applications

Our Abpromise guarantee covers the use of ab221549 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td>1/100.</td>
<td></td>
</tr>
<tr>
<td>WB</td>
<td>1/1000.</td>
<td>Detects a band of approximately 38 kDa (predicted molecular weight: 38 kDa). Under our testing conditions we used a high sensitivity exposure system to obtain this result. Customers are recommended to optimize WB testing conditions.</td>
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</tbody>
</table>

Target

Function
Transcription factor which binds to specific A/T-rich DNA sequences in the promoter regions of a number of genes. Involved in transcriptional regulation in islet beta cells. Binds to the insulin promoter and is involved in regulation of the insulin gene. Together with NKX2-2 and IRX3 acts to restrict the generation of motor neurons to the appropriate region of the neural tube. Belongs to the class II proteins of neuronal progenitor factors, which are induced by SHH signals.

Tissue specificity
Pancreatic beta cells.

Sequence similarities
Contains 1 homeobox DNA-binding domain.

Domain
The C-terminal domain contributes to sequence-specific DNA-binding.

Cellular localization
Nucleus.

Images

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse pancreas tissue labeling nkx6.1 with ab221549 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Nuclear staining on islet of mouse pancreas is observed.

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.


Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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Immunohistochemical analysis of paraffin-embedded human colon tissue labeling nkx6.1 with ab221549 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

**Negative control:** no staining on human colon (PMID: 25871618).

Counter stained with hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Anti-nkx6.1 antibody [EPR20405] (ab221549) at 1/1000 dilution +
Human fetal pancreas lysate at 20 µg

**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Developed using the ECL technique.

**Predicted band size:** 38 kDa
**Observed band size:** 38 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Under our testing conditions we used a high sensitivity exposure system to obtain this result. Customers are recommended to optimize WB testing conditions.

Anti-nkx6.1 antibody [EPR20405] (ab221549) at 1/1000 dilution +
Beta-TC-6 (mouse pancreas insulinoma beta cell) whole cell lysate at 10 µg

**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 38 kDa

**Exposure time:** 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST

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

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