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36-2862: Anti-NKX6.1 (Marker for Pancreatic and Duodenal Neuroendocrine Tumors) Monoclonal Antibody(Clone: NKX61/2561)

Clonality :	Monoclonal
Clone Name :	NKX61/2561
Application :	IHC
Reactivity :	Human
Gene :	NKX6-1
Gene ID :	4825
Uniprot ID :	P78426
Alternative Name :	Homeobox protein NK-6 homolog A; NK homeobox, family 6, A; NK6 homeobox 1; NK6 transcription factor homolog A; NK6 transcription factor related, locus 1 (Drosophila); NKX6-1; NKX6A
Isotype :	Mouse IgG2c, kappa
Immunogen Information :	Recombinant full-length human NKX6.1 protein

Description

Members of the Nkx family of homeodomain proteins are key regulators of growth and development in several tissues, including brain, heart and pancreas. During neural development, sonic hedgehog (Shh) is known to control cell fate and mitogenesis, which is correlated with Shh dose-dependent expression of several genes, including Nkx-6.1. Specifically, Nkx-6.1 is responsible for cellular differentiation in the ventral neural tube and spinal meninges in response to Shh. In the pancreas, Nkx-6.1 is exclusively expressed in the islets of Langerhans in differentiating and mature B cells, which produce Insulin. The presence of Pdx-1 is required for the expression of Nkx-6.1 as well as other pancreatic B cell specific genes, including Insulin, Glut2 and IAPP. Subsequently, Nkx-6.1 binds to the DNA consensus sequence, TTAATTAC, to direct the repression of specific genes in B cells. Nkx6.1 is highly expressed in pancreatic and duodenal well-differentiated neuroendocrine tumors (WDNETS) and in metastatic WDNETS, is a highly specific marker of tumors of pancreatic origin. It has thus been sÂµggested that Nkx6.1 is a useful inclusion into IHC panels for identifying primary sites of WDNETS.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage condition :	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

Application Note

Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95&degC followed by cooling at RT for 20 minutes);

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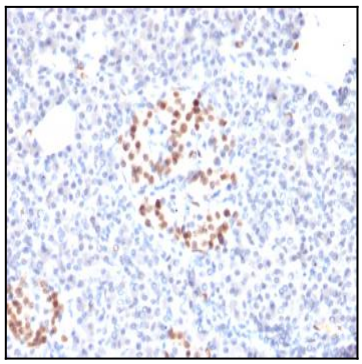

Fig. 1: Formalin-fixed, paraffin-embedded human Pancreas stained with NKX6.1 Mouse Monoclonal Antibody (NKX61/2561).

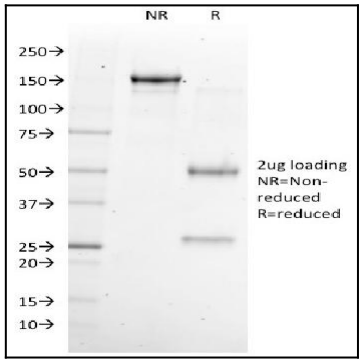

Fig. 2: SDS-PAGE Analysis Purified NKX6.1 Mouse Monoclonal Antibody (NKX61/2561). Confirmation of Purity and Integrity of Antibody.

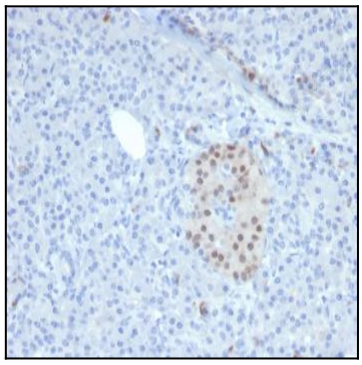

Fig. 3: Formalin-fixed, paraffin-embedded human Pancreas stained with NKX6.1 Mouse Monoclonal Antibody (NKX61/2561).

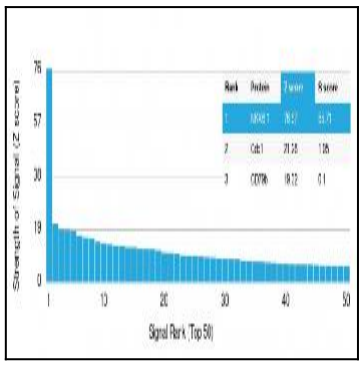

Fig. 4: Analysis of Protein Array containing more than 19,000 full-length human proteins using NKX6.1 Mouse Monoclonal Antibody (NKX61/2561). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.