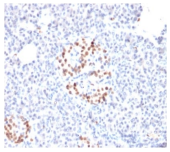
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NKX6.1 Monoclonal Mouse Antibody (NKX61/2561)



Product 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 suggested that Nkx6.1 is a useful inclusion into IHC panels for identifying primary sites of WDNETS.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 2561, Anti-NKX6.1 (NKX61/2561)

Product attributes

Antibody number	#2561
Antibody reactivity (target)	NKX6.1
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	NKX61/2561
Isotype	IgG2c, kappa
Molecular weight of antigen	40-50 kDa
Synonyms	Homeobox protein NK-6 homolog A; Homeobox protein Nkx-6.1; NK homeo box, family 6, member A; NK homeobox (Drosophila), family 6, A; NK homeobox, family 6, A; NK6 homeobox 1; NK6 transcription factor homolog A; NK6 transcription factor related, locus 1; NK6 transcription factor related, locus 1 (Drosophila); NKX6-1; NKX6.1; NKX61; NKX61_HUMAN; NKX6A
Human gene symbol	NKX6-1
Entrez gene ID	4825
SwissProt	P78426
Unigene	546270
Immunogen	Human full-length recombinant NKX6.1 protein
Verified antibody applications	IHC (FFPE) (verified)
Antibody target cellular localization	Nucleus
Species reactivity	Human
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 1-2 ug/mL for 30 minutes at RT, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes, Optimal dilution for a specific application should be determined by user
Positive control	Human fetal small intestine lysate or pancreas tissue.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Validated in protein array	Monospecific
Antibody research areas	Developmental biology, Endocrinology, Transcription factors
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	Pancreatic beta cells

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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