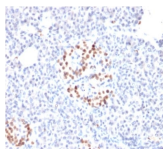


# NKX6.1 Monoclonal Mouse Antibody (NKX61/2561)



## 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](mailto: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)**

Call us : [800-304-5357](tel:800-304-5357)

## 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                      | 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. Immunohistochemistry (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 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| BNC74             | CF®740             | 742/767    | 633-685    | 775/50                   | <a href="#">CF®740 Features</a>  |
| 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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