

Mouse Anti-TTF1/NKX2-1 antibody

SLM-34158M

Product Name	TTF1/NKX2-1
Chinese Name	甲状腺核转录因子-1 单克隆抗体
Alias	NKX21_HUMAN; Homeobox protein Nkx-2.1; Homeobox protein NK-2 homolog A; Thyroid nuclear factor 1; Thyroid transcription factor 1 (TTF-1); Thyroid-specific enhancer-binding protein (T/EBP); NKX2A; TITF1; TTF-1; NK2 homeobox 1; BCH; BHC; NK-2; TEBP; NMTC1; T/EBP;
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	5B12
React Species	Human,Mouse,Rat
Applications	IHC-P=1:100-500, IHC-F=1:100-500, IF=1:100-500 optimal dilutions/concentrations should be determined by the end user.
Cellular localization	The nucleus
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human TTF-1
Lsotype	IgG1,Kappa
Purification	affinity purified by Protein A
Buffer Solution	PBS, pH7.2, 3% Porcolin 300, containing stabilizing protein
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	This gene encodes a protein initially identified as a thyroid-specific transcription factor. The encoded protein binds to the thyroglobulin promoter and regulates the expression of thyroid-specific genes but has also been shown to regulate the expression of genes involved in morphogenesis. Mutations and

deletions in this gene are associated with benign hereditary chorea, choreoathetosis, congenital hypothyroidism, and neonatal respiratory distress, and may be associated with thyroid cancer. Multiple transcript variants encoding different isoforms have been found for this gene. This gene shares the symbol/alias 'TFF1' with another gene, transcription termination factor 1, which plays a role in ribosomal gene transcription. [provided by RefSeq, Apr 2011]

Function:

Transcription factor that binds and activates the promoter of thyroid specific genes such as thyroglobulin, thyroperoxidase, and thyrotropin receptor. Crucial in the maintenance of the thyroid differentiation phenotype. May play a role in lung development and surfactant homeostasis.

Subcellular Location:

Nucleus.

Tissue Specificity:

Thyroid, lung and CNS. Expressed in restricted regions of the developing brain within the diencephalon, in parts of the hypothalamus and neurohypophysis, and in the telencephalon.

Post-translational modifications:

Phosphorylated on serine residues by STK3.

DISEASE:

Chorea, hereditary benign (BHC) [MIM:118700]: A rare autosomal dominant movement disorder, defined by early onset in childhood, a stable or non-progressive course of chorea, and no mental deterioration. Chorea is characterized by involuntary, forcible, rapid, jerky movements that may be subtle or become confluent, markedly altering normal patterns of movement. Note=The disease is caused by mutations affecting the gene represented in this entry. Choreoathetosis and congenital hypothyroidism with or without pulmonary dysfunction (CAHTP) [MIM:610978]: An autosomal dominant disorder that manifests in infancy with neurological disturbances, hypothyroidism, and respiratory problems. It is characterized by movement abnormalities beginning with muscular hypotonia followed by the development of chorea, athetosis, dystonia, ataxia, and dysarthria. {ECO:0000269|PubMed:11854318, Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

Belongs to the NK-2 homeobox family. Contains 1 homeobox DNA-binding domain.

SWISS:
P43699

Gene ID:
7080

Database links:

[Entrez Gene: 7080](#) Human

[Entrez Gene: 21869](#) Mouse

[Entrez Gene: 25628](#) Rat

[Omim: 600635](#) Human

[SwissProt: P43699](#) Human

[SwissProt: P50220](#) Mouse

[SwissProt: P23441](#) Rat

[Unigene: 94367](#) Human

[Unigene: 89972](#) Mouse

[Unigene: 34265](#) Rat

结合并激活甲状腺特异性基因（如甲状腺球蛋白，甲状腺过氧化物酶和促甲状腺激素受体）启动子的转录因子；对于维持甲状腺分化表型至关重要；可能在肺部发育和表面活性剂稳态中起作用；与 GRHL2 形成一个调节环，该环调节肺 epithelial cells 形态的发生和分化；抑制生物钟转录阻遏物 NR1D1 的转录等。