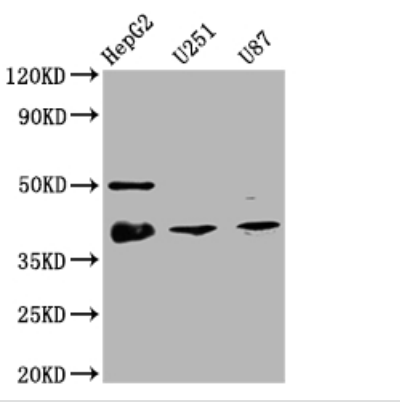
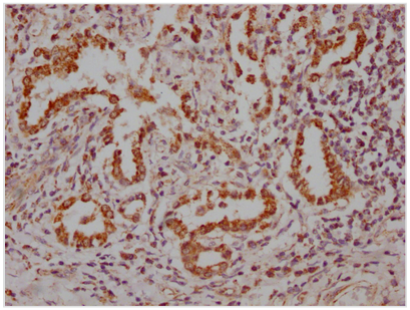
NKX2-1 Recombinant Monoclonal Antibody

Product Code	CSB-RA181189A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P43699
Immunogen	A synthesized peptide derived from human TTF1
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, FC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, FC:1:20-1:200
Relevance	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. Forms a regulatory loop with GRHL2 that coordinates lung epithelial cell morphogenesis and differentiation. Activates the transcription of GNRHR and plays a role in enhancing the circadian oscillation of its gene expression. Represses the transcription of the circadian transcriptional repressor NR1D1 (By similarity).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling
Gene Names	NKX2-1
Clone No.	6C11

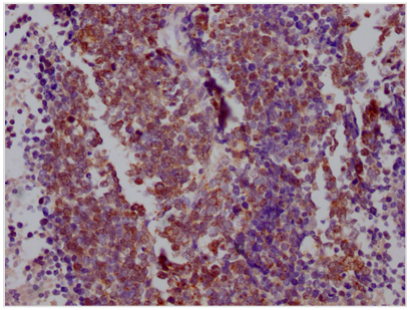
Image



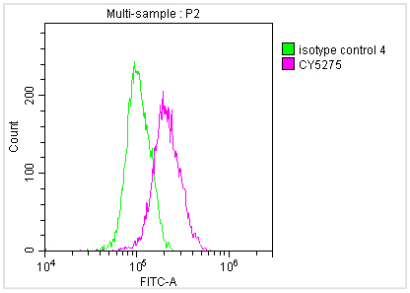
Western Blot
Positive WB detected in: HepG2 whole cell lysate, U251 whole cell lysate, U87 whole cell lysate
All lanes: TTF1 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 39 kDa
Observed band size: 39 kDa



IHC image of CSB-RA181189A0HU diluted at 1:100 and staining in paraffin-embedded human lung tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA181189A0HU diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Overlay histogram showing A549 cells stained with CSB-RA181189A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followedby the antibody (1µg/1*10^6 cells) for 1 h at 4?.The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4?. Control antibody (green line) was Rabbit IgG (1µg/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

NKX2-1 is a homeodomain transcription factor that is required for thyroid genesis and thyroid-specific gene transcription. NKX2-1 is selectively expressed from prenatal development to adulthood in the brain, thyroid gland, parathyroid gland, lungs, skin, and enteric ganglia, and plays a vital role at the interface of the brain, endocrine, and immune systems. NKX2-1 is involved in a number of physiologic processes that are linked to the somatic symptoms that are typical in schizophrenia. NKX2-1 is also important for neurodevelopment and is required for the formation and function of subgroups of neurons, glia, and functional brain networks in schizophrenia.

The production of the recombinant NKX2-1 antibody includes extracting RNA from spleen cells that are derived from immunized animals, reversely transcribing the RNA into DNA, sequencing and screening antibody genes, amplifying the heavy chain and light chain genes of the antibody using PCR technology, linking and cloning the genes into a plasma vector, and introducing

the vector clone into a mammalian cell for functional antibody expression. The recombinant NKX2-1 antibody was purified using Affinity-chromatography. It can be used to detect the NKX2-1 antibody from Human in the ELISA, WB, IHC, FC.