Datasheet for ABIN728713

anti-TTF1 antibody (AA 201-300)

1 Validation | 3 Images | 2 Publications

Go to Product page

Overview

Quantity:	100 µL
Target:	TTF1
Binding Specificity:	AA 201-300
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TTF1 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunocytochemistry (ICC)

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human TTF-1
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein A.

Target Details

Target:	TTF1
Alternative Name:	TTF1 (TTF1 Products)
Background:	Synonyms: BCH, BHC, NK-2, TEBP, TTF1, NKX2A, T/EBP, TITF1, TTF-1, NKX2.1, Homeobox

Target Details

	protein Nkx-2.1, Homeobox protein NK-2 homolog A, Thyroid nuclear factor 1, Thyroid transcription factor 1, Thyroid-specific enhancer-binding protein, NKX2-1 Background: 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. 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).
Gene ID:	7080
UniProt:	P43699
Pathways:	Thyroid Hormone Synthesis, Regulation of Systemic Arterial Blood Pressure by Hormones, Feeding Behaviour

Application Details

Application Notes:	WB 1:300-5000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200
	ICC 1:100-500

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 μg/μL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C

Handling

Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

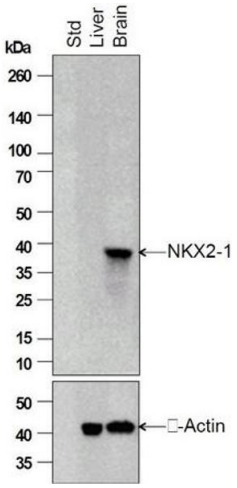
Publications

Product cited in:

Vadasz, Jensen, Moncada, Girard, Zhang, Blanchette, Finck: "Second and third trimester amniotic fluid mesenchymal stem cells can repopulate a de-cellularized lung scaffold and express lung markers." in: **Journal of pediatric surgery**, Vol. 49, Issue 11, pp. 1554-63, (2014) (PubMed).

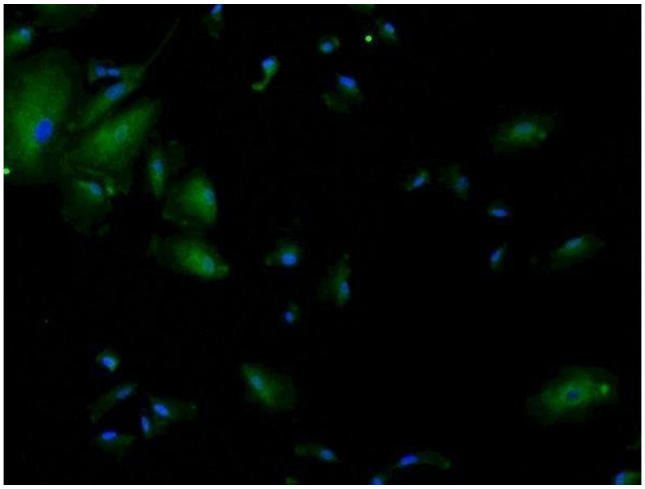
Huang, Li, Lin, Shi, Lin, Li, Xu: "Upregulation of thyroid transcription factor-1 and human leukocyte antigen class I in Hashimoto's disease providing a clinical evidence for possible triggering autoimmune reaction." in: **European journal of endocrinology / European Federation of Endocrine Societies**, Vol. 164, Issue 5, pp. 795-800, (2011) (PubMed).

Images



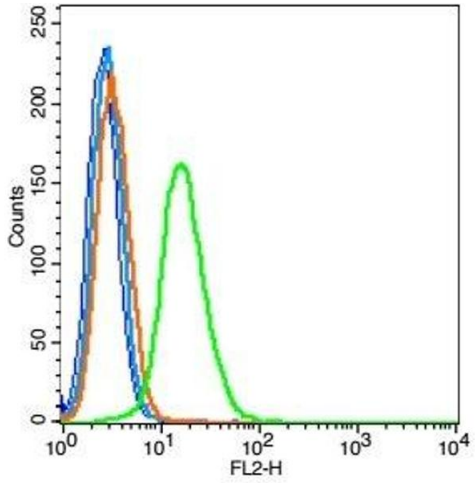
SDS-PAGE

Image 1. Independently Validated Antibody, image provided by Science Direct, badge number 028752. Western blot analysis of mouse brain and liver extracts using NK2 Homeobox 1 (ABIN728713) (NKX2-1) antibody, 1:500 dilution. NKX2-1 is present in the positive control sample (brain) and absent from the negative control sample (liver). The predicted and observed position of NKX2-1 is at around 38 kDa.



Immunofluorescence (Cultured Cells)

Image 2. PFA fixed A549 cells with Anti-TTF1 Polyclonal Antibody at 1:200 dilution, followed by conjugation to the secondary, Goat Anti-Rabbit IgG A488 1:100 for 30min. This data was generously submitted by an end user as part of our Bioss Discovery program.



Flow Cytometry

Image 3. Human A549 probed with TTF1 Polyclonal Antibody, Unconjugated (green) at 1:100 for 30 minutes followed by a PE conjugated secondary antibody compared to unstained cells (blue), secondary only (light blue), and isotype control (orange).

Successfully validated (Western Blotting (WB))

by Alamo Laboratories Inc

Report Number: 028752

Date: Sep 08 2013

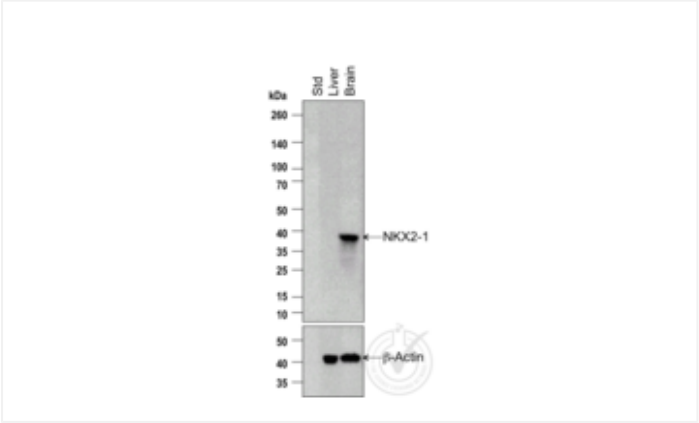
Lot Number:	120319
Method validated:	Western Blotting (WB)
Positive Control:	Brain
Negative Control:	Liver
Notes:	A strong band was observed at the expected size in the positive control lysate but not in the negative control lysate.
Primary Antibody:	- Antibody: NK2 Homeobox 1 (NKX2-1) antibody - Catalog number: ABIN728713 - Lot number: 120319
Secondary Antibody:	- Antibody: Goat anti-Rabbit IgG Antibody (HRP) - Catalog number: ABIN1384779 - Lot number: YYDW62W
Controls:	• Mouse brain and liver tissue extracts were prepared using N-PER (87792 Thermo Scientific) and T-PER (78510 Thermo Scientific) protein extraction reagents, respectively. • Loading control: blots were stripped and re-probed for Beta-actin to ensure equal loading of lysates.
Protocol:	• 1. Total protein extracts were boiled in 1X SDS Sample Buffer containing 1% SDS and 1.25% Beta-mercaptoethanol at 95°C for 5 minutes prior to loading. • 2. 24 µg of boiled extracts were loaded and resolved on a 8-16% SDS-polyacrylamide gel. • 3. The Spectra Multicolor Broad Range molecular mass marker (26634 Thermo Scientific) was used as a standard. • 4. Proteins were transferred onto PVDF membrane by tank transfer and protein transfer was confirmed with Ponceau S staining. • 5. The immunoblot membrane was blocked in PBS containing 3% (W/V) non-fat dry milk at room temperature for 1 hour. • 6. The membrane was rinsed with PBS containing 0.05% Tween-20 once. • 7. The membrane was immersed with the protein side up in the antibody solution in PBS containing 1% (W/V) non-fat dry milk and incubated for 2 hours at room temperature (~26°C). • 8. The membrane was rinsed in PBS containing 0.05% Tween-20 thrice for 10 min each. • 9. The membrane was incubated in the HRP-conjugated secondary antibody solution in PBS

containing 1% (W/V) non-fat dry milk and incubated for 1 hour at room temperature (~26°C) with gentle agitation.

- 10. The membrane was rinsed in PBS containing 0.05% Tween-20 thrice for 10 min each.
- 11. The membrane was washed in PBS twice for 30 seconds each.
- 12. Signals were detected with Pierce ECL Western Blotting Substrate (32109, Thermo Scientific). The blot was scanned for 300 seconds.
- 13. The membrane was rinsed three times with PBS containing 0.05% Tween-20.
- 14. Incubated in Acidic Glycine Stripping Buffer at room temperature with gentle agitation for 3 times, 10 min each.
- 15. The membrane was washed in PBS containing 0.05% Tween-20 times for 10 min each.
- 16. Repeated Steps 5-12 with the loading control antibody (for Beta-actin) and its matching secondary antibody.

Experimental Notes:	None

Image for Validation report #028752



Validation image no. 1 for anti-Transcription Termination Factor, RNA Polymerase I (TTF1) (AA 201-300) antibody (ABIN728713)

Figure 1: Western blot analysis of mouse brain and liver extracts using NK2 Homeobox 1 (NKX2-1) antibody (Catalog number ABIN728713, Lot number 120319). NKX2-1 is present in the positive control sample (brain) and absent from the negative control sample (liver). The arrowhead indicates the expected position of NKX2-1 (predicted MW ~38kDa). 24 micrograms of total protein extracts from each sample were loaded into each lane. Upper panel: scanned image of the NKX2-1 antibody probed with the liver and brain extracts in lanes 2 and 3, respectively. Lower panel: scanned image of the loading control (Beta-actin).