10320 Camino Santa Fe, Suite G
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TGFBR2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP11854A

Specification

TGFBR2 Antibody (N-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	P37173
Other Accession	NP_003233.4, NP_001020018.1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**13-40**

TGFBR2 Antibody (N-term) - Additional Information

Gene ID 7048

Other Names
TGF-beta receptor type-2, TGFR-2, TGF-beta type II receptor, Transforming growth factor-beta receptor type II, TGF-beta receptor type II, TbetaR-II, TGFBR2

Target/Specificity
This TGFBR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 13-40 amino acids from the N-terminal region of human TGFBR2.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
TGFBR2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TGFBR2 Antibody (N-term) - Protein Information

Name TGFBR2

Function Transmembrane serine/threonine kinase forming with the TGF- beta type I serine/threonine kinase receptor, TGFBR1, the non- promiscuous receptor for the TGF-beta cytokines TGFB1, TGFB2 and TGFB3. Transduces the TGFB1, TGFB2 and TGFB3 signal from the cell surface to the cytoplasm and thus regulates a plethora of physiological and pathological processes including cell cycle arrest in epithelial and hematopoietic cells, control of mesenchymal cell proliferation and differentiation, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. The formation of the receptor complex composed of 2 TGFBR1 and 2 TGFBR2 molecules symmetrically bound to the cytokine dimer results in the phosphorylation and activation of TGFBR1 by the constitutively active TGFBR2. Activated TGFBR1 phosphorylates SMAD2 which dissociates from the receptor and interacts with SMAD4. The SMAD2-SMAD4 complex is subsequently translocated to the nucleus where it modulates the transcription of the TGF-beta-regulated genes. This constitutes the canonical SMAD-dependent TGF-beta signaling cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways.

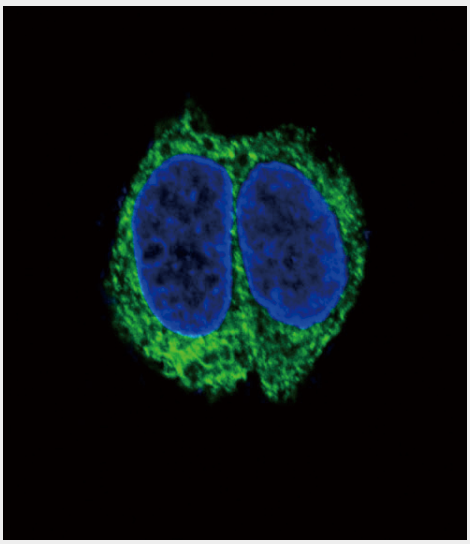
Cellular Location
Cell membrane; Single-pass type I membrane protein. Membrane raft

TGFBR2 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TGFBR2 Antibody (N-term) - Images



Confocal immunofluorescent analysis of TGFBR2 Antibody (N-term) (Cat#AP11854a) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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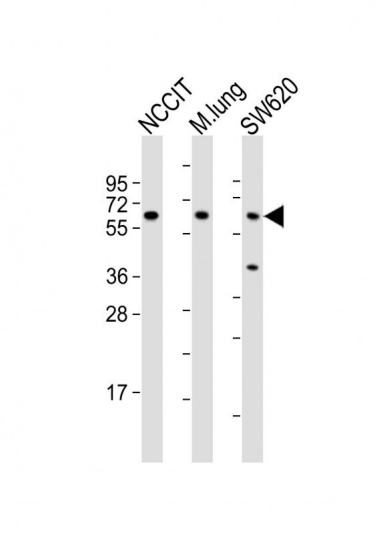
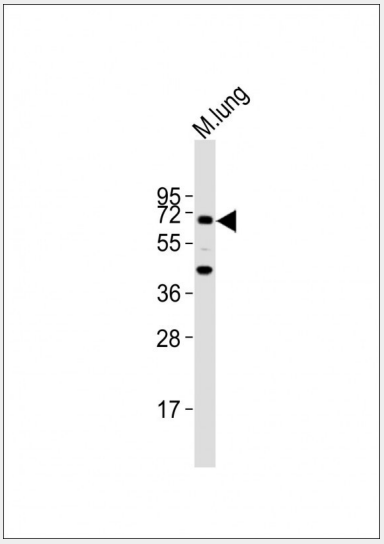


All lanes : Anti-TGFBR2 Antibody (N-term) at 1:2000 dilution Lane 1: NCCIT whole cell lysates Lane 2: mouse lung lysates Lane 3: SW620 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-TGFBR2 Antibody (N-term)at 1:2000 dilution + mouse lung lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 65 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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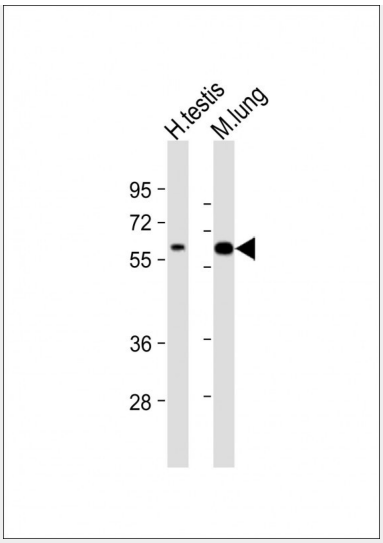
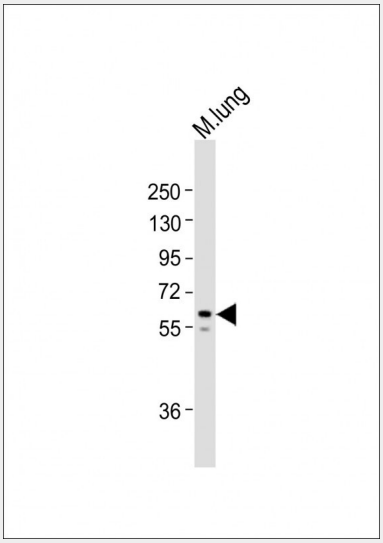


All lanes : Anti-TGFBR2 Antibody (N-term) at 1:2000 dilution Lane 1: human testis lysate Lane 2: mouse lung lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-TGFBR2 Antibody (N-term)at 1:2000 dilution + mouse lung lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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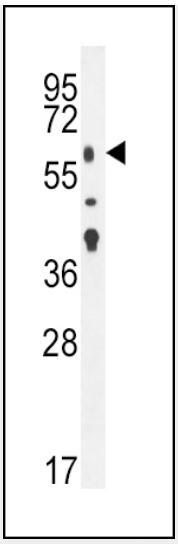
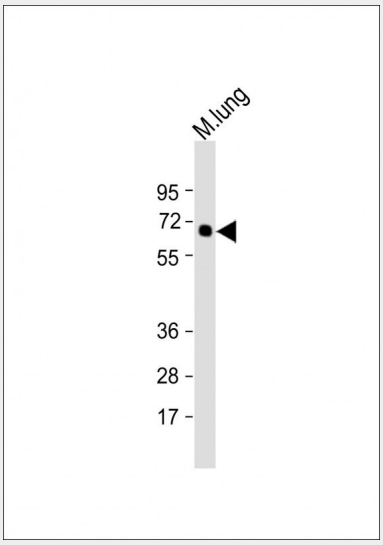


TGFBR2 Antibody (N-term) (Cat. #AP11854a) western blot analysis in mouse lung tissue lysates (35ug/lane).This demonstrates the TGFBR2 antibody detected the TGFBR2 protein (arrow).



Anti-TGFBR2 Antibody (N-term)at 1:2000 dilution + mouse lung lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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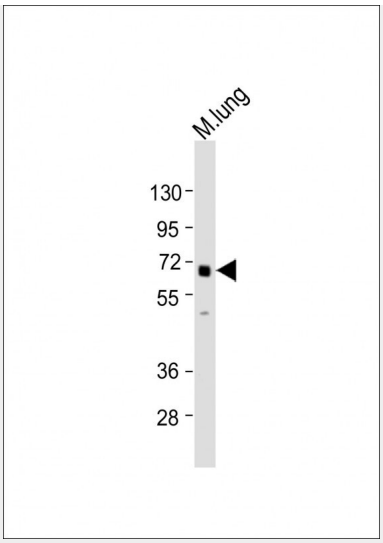
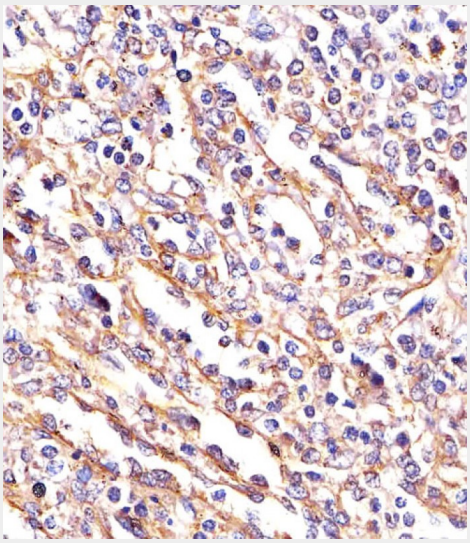
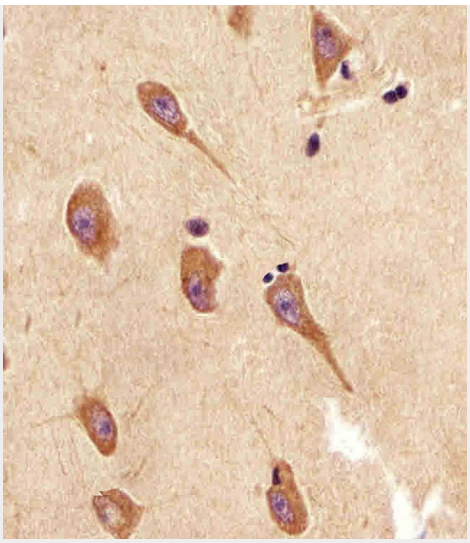


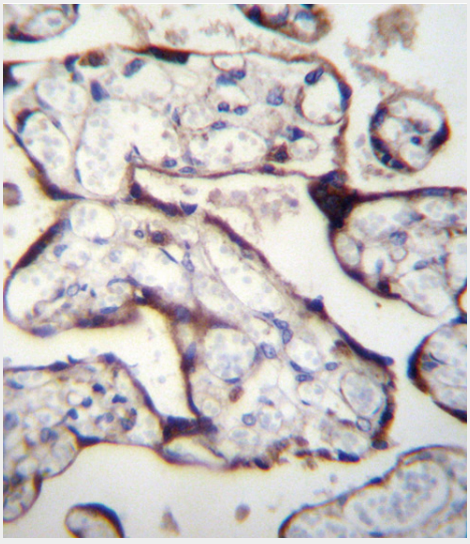
Anti-TGFBR2 Antibody (N-term)at 1:1000 dilution + mouse lung lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP11854a staining TGFBR2 in Human spleen tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AP11854a staining TGFBR2 in human brain sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



TGFBR2 Antibody (N-term) (Cat. #AP11854a)immunohistochemistry analysis in formalin fixed and paraffin embedded human placenta tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of TGFBR2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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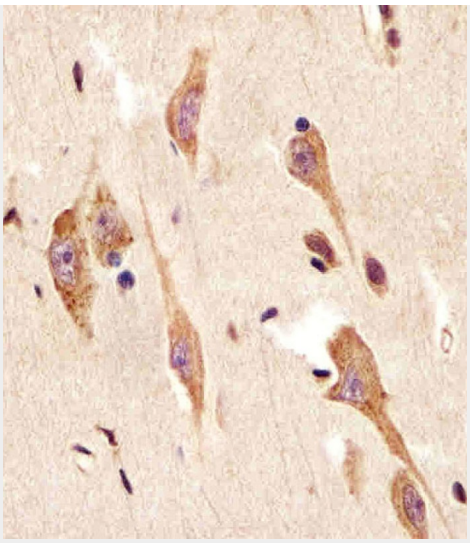

AP11854a staining TGFBR2 in human brain sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

TGFBR2 Antibody (N-term) - Background

This gene encodes a member of the Ser/Thr protein kinase family and the TGFB receptor subfamily. The encoded protein is a transmembrane protein that has a protein kinase domain, forms a heterodimeric complex with another receptor protein, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation. Mutations in this gene have been associated with Marfan Syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized.

TGFBR2 Antibody (N-term) - References

Inamoto, S., et al. Cardiovasc. Res. 88(3):520-529(2010)
Bianchini, G., et al. J. Clin. Oncol. 28(28):4316-4323(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Kim, J.N., et al. Toxicology 275 (1-3), 29-35 (2010) :
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :

TGFBR2 Antibody (N-term) - Citations

- The anti-fibrotic effects of microRNA-153 by targeting TGFBR-2 in pulmonary fibrosis.