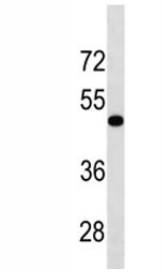
TGFBR1 Antibody (F52206)

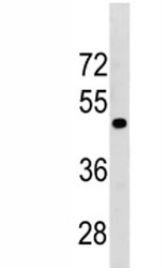
Catalog No.	Formulation	Size
F52206-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52206-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

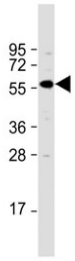
Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Rat, Bovine, Pig
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P36897
Applications	Western Blot : 1:1000
Limitations	This TGFBR1 antibody is available for research use only.



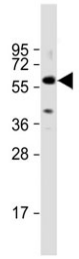
TGFBR1 antibody western blot analysis in human HL-60 lysate. Predicted molecular weight: ~55 kDa.



TGFBR1 antibody western blot analysis in mouse Neuro-2a lysate. Predicted molecular weight: ~55 kDa.



TGFBR1 antibody western blot analysis in mouse kidney tissue lysate. Predicted molecular weight: ~55 kDa.



TGFBR1 antibody western blot analysis in human A431 cell lysate. Predicted molecular weight: ~55 kDa.

Description

Transmembrane serine/threonine kinase forming with the TGF-beta type II serine/threonine kinase receptor, TGFBR2, 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 is thus regulating 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 the 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. For instance, TGFBR1 induces TRAF6 autoubiquitination which in turn results in MAP3K7 ubiquitination and activation to trigger apoptosis. Also regulates epithelial to mesenchymal transition through a SMAD-independent signaling pathway through PARD6A phosphorylation and activation.

Application Notes

Titration of the TGFBR1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 145-172 from the human protein was used as the immunogen for this TGFBR1 antibody.

Storage

Aliquot the TGFBR1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.