

Mouse Monoclonal Antibody, Anti-TGF-β RI (Unconjugated)

Store at 2°C to 8°C (short-term), or -20°C (long-term)

Catalog Number: AH01552

Pub. No. MAN0007616 Rev. 1.00

Clonality: Monoclonal	Quantity: 100 µg	Volume: 200 µL	Concentration: 0.5 mg/mL
Host/Class: Mouse IgG	Reactivity: Human TGF-β RI	Predicted Reactivity: Human, Rat	

Product Description

TGF-beta receptor type I (TGF-β RI) is a ubiquitously expressed 55 kDa type I transmembrane serine/threonine receptor kinase. TGF-β RI forms a functional heterotetrameric signaling TGF-β receptor complex in conjunction with TGF-β RII. The type II receptor binds TGF-β and recruits a type I receptor to form a receptor-ligand complex. Upon dimerization, the type II receptor phosphorylates the GS domain (gly-ser rich) of the type I receptor. Phosphorylation of the GS domain stimulates intracellular response through phosphorylation of SMADs. SMADs enter the nucleus and are known to interact with transcription factors (e.g., FAST-1).

Product Specifications

Immunogen:	Recombinant human TGF-β RI extracellular fragment.
Alternate Names:	ALK-5 (activin-like kinase 5), SKR4 (serine/threonine-protein kinase receptor R4)
Apparent MW:	52 kDa
Sequence Identity:	Human
Sequence Homology:	Human, Rat
Clone/PAD:	243R32
Isotype:	IgG ₁ , κ
Lot:	See product label

Product Applications

Application	Species	Test Material	Concentration
Western blot	Human	HeLa cells	1 µg/mL
Western blot	Rat	PC12 cells	1 µg/mL

Storage and Handling

Store the antibody at 2°C to 8°C for up to 1 month, -20°C for long storage. Avoid repeated freezing and thawing.

Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

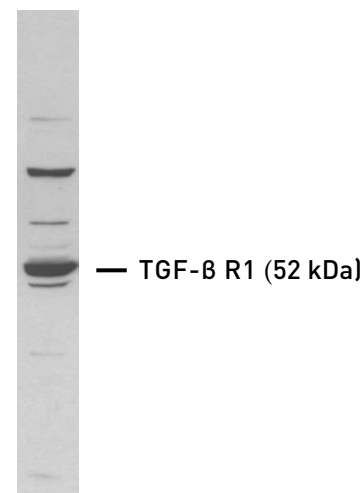


Figure 1 Western Blot Analysis

Proteins from HeLa cell extracts were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this TGF-β RI monoclonal antibody (clone 243R32) at a concentration of 1 µg/mL for two hours at room temperature. After washing, the membranes were incubated with a goat F(ab')₂ anti-mouse IgG HRP conjugated antibody at a 1:5000 dilution. Bands were detected with ECL Chemiluminescent Substrate and Pierce CL-X Posure™ film.

Storage Buffer

Phosphate buffered saline (PBS), pH 7.4 with 0.1% sodium azide.



CAUTION! Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. SDSs are available at

www.lifetechnologies.com/support.

For research use only. Not for use in diagnostic procedures.

References

1. Mishra, L. *et al.* (2005) Transforming Growth Factor- β Signaling in Stem Cells and Cancer. *Science* 310: 68–71.
2. Feng, X.H. and Derynck, R. (2005) Specificity and versatility in TGF-beta signaling through Smads. *Annu. Rev. Cell Dev. Biol.* 21:659–693.
3. Derynck, R. and Feng, X.H. (1997) TGF-beta receptor signaling. *Biochim. Biophys. Acta.* 1333(2):F105–150.
4. Wrana, J. L. *et al.* (1992) TGF β signals through a heteromeric protein kinase receptor complex. *Cell* 71:1003–1014.

Product Documentation

To obtain a Certificate of Analysis or SDS, visit www.lifetechnologies.com/support.








Related Products

Product Name	Quantity	Catalog No.
Anti-Smad2 [pT8] antibody	10 blots	44240G
Anti-Smad2 [pSpS465/467] antibody	10 blots	44244G
Anti-Smad3 [pSpS423/425] antibody	10 blots	44246G
TGF- β 1 Multispecies ELISA kit	1 kit	KAC1688
Recombinant TGF- β 1 protein	5 μ g	PHG9204

Limited Product Warranty

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Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

Limited Use Label License No. 327: Recombinant Antibody Technology

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