

TGFβ RIII (F-20): sc-31287

BACKGROUND

A total of three members of the TGFβ family, TGFβ1, TGFβ2 and TGFβ3, have been identified in mammals. Each is synthesized as a latent precursor that is subsequently cleaved forming the 112 amino acid growth factor which becomes active upon dimerization. TGFβs mediate their activity by high affinity binding to the type II receptor transmembrane protein with a cytoplasmic serine-threonine kinase domain. TGFβ RIII (transforming growth factor β receptor type 3), also known as TGFR3 or TGFR-3, is an 850 amino acid secreted and single-pass type I membrane protein that contains one ZP domain and may assist in capturing TGFβ for presentation to signaling receptors. TGFβ RIII undergoes post-translational modification by glycosaminoglycan groups (GAG) and is encoded by a gene that maps to human chromosome 1p22.1.

REFERENCES

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2. Derynck, R., et al. 1985. Human transforming growth factor-β cDNA sequence and expression in tumor cell lines. Nature 316: 701-705.
3. ten Dijke, P., et al. 1988. Identification of a new member of the transforming growth factor type β gene family. Proc. Natl. Acad. Sci. USA 85: 4715-4719.
4. Cheifetz, S., et al. 1990. Distinct transforming growth factor-β receptor subsets as determinants of cellular responsiveness to three TGFβ isoforms. J. Biol. Chem. 265: 20533-20538.
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8. Kaname, S., et al. 1996. Betaglycan has multiple binding sites for transforming growth factor-β 1. Biochem. J. 315: 815-820.

CHROMOSOMAL LOCATION

Genetic locus: TGFR3 (human) mapping to 1p22.1.

SOURCE

TGFβ RIII (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TGFβ RIII of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31287 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TGFβ RIII (F-20) is recommended for detection of TGFβ RIII of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TGFβ RIII (F-20) is also recommended for detection of TGFβ RIII in additional species, including canine.

Suitable for use as control antibody for TGFβ RIII siRNA (h): sc-40224, TGFβ RIII shRNA Plasmid (h): sc-40224-SH and TGFβ RIII shRNA (h) Lentiviral Particles: sc-40224-V.

Molecular Weight of TGFβ RIII: 100-200 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **TGFβ RIII (A-4): sc-74511**, our highly recommended monoclonal alternative to TGFβ RIII (F-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TGFβ RIII (A-4): sc-74511**.