

#3713 Store at -20°C

TGF-β Receptor II (K105) Antibody

100 μl
 (10 western blots)



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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

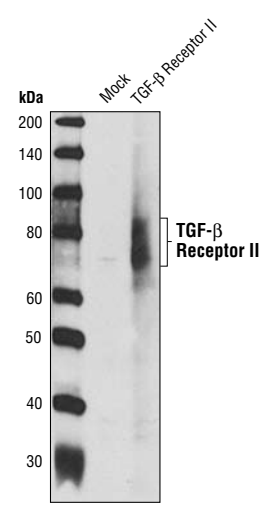
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, (Mk)	70-80 kDa	Rabbit**

Background: Transforming growth factor-β (TGF-β) superfamily members are critical regulators of cell proliferation and differentiation, developmental patterning and morphogenesis, and disease pathogenesis (1-4). TGF-β elicits signaling through three cell surface receptors: type I (RI), type II (RII) and type III (RIII). Type I and type II receptors are serine/threonine kinases that form a heteromeric complex. In response to ligand binding, the type II receptors form a stable complex with the type I receptors allowing phosphorylation and activation of type I receptor kinases (5). The type III receptor, also known as betaglycan, is a transmembrane proteoglycan with a large extracellular domain that binds TGF-β with high affinity but lacks a cytoplasmic signaling domain (6,7). Expression of the type III receptor can regulate TGF-β signaling through presentation of the ligand to the signaling complex. The only known direct TGF-β signaling effectors are the Smad family proteins, which transduce signals from the cell surface directly to the nucleus to regulate target gene transcription (8,9).

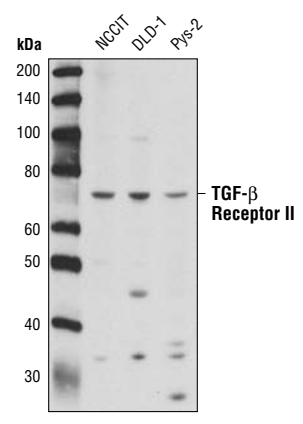
Specificity/Sensitivity: TGF-β Receptor II (K105) Antibody detects endogenous levels of total TGF-β receptor II protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys105 (extracellular region) of human TGF-β receptor II. Antibodies were purified by protein A and peptide affinity chromatography.

- Background References:**
- Massague, J. et al. (2000) *Cell* 103, 295–309.
 - Caestecker, M.P. et al. (2000) *J. Natl. Cancer Inst.* 92, 1388–1402.
 - Derynck, R. et al. (2001) *Nature Genet.* 29, 117–129.
 - Miyazono, K. et al. (2000) *Adv. Immunol.* 75, 115–157.
 - Derynck, R. et al. (1997) *Biochim. Biophys. Acta.* 1333, F105–150.
 - López-Casillas, F. et al. (1991) *Cell* 67, 785–795.
 - Wang, X.F. et al. (1991) *Cell* 67, 797–805.
 - Derynck, R. et al. (1998) *Cell* 95, 737–740.
 - Massague, J. et al. (2000) *Nat. Rev. Mol. Cell Biol.* 1, 169–178.



Western blot analysis of extracts from HeLa cells, mock transfected or transfected with human TGF-β receptor II construct, using TGF-β Receptor II (K105) Antibody.



Western blot analysis of extracts from NCCIT, DLD-1 and Pys-2 cells using TGF-β Receptor II (K105) Antibody.

Entrez-Gene ID #7048
Swiss-Prot Acc. #P37173

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
 Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.