## TGF-β Receptor II (K105) Antibody





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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:	
W	H	Endogenous	70-80	Rabbit	#P37173	7048	
Product Usage Information		<b>Application</b> Western Blotting			<b>Dilution</b> 1:1000		
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.					
Specificity/Sen	sitivity	TGF- $\beta$ Receptor II (K105) Antibody detects endogenous levels of total TGF- $\beta$ receptor II protein.					
Species predict based on 100% homology	ted to react sequence	Monkey					
Source / Purific	cation	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		Transforming growth factor- $\beta$ (TGF- $\beta$ ) proteins belong to the TGF- $\beta$ superfamily of cytokines that play a critical role in regulating cell proliferation and differentiation, developmental patterning and morphogenesis, and disease pathogenesis (1-3). TGF- $\beta$ ligands elicit signaling through three cell surface receptors: type I (RI), type II (RII), and type III (RIII) TGF- $\beta$ receptors. Type I and type II receptors are serine/threonine kinases that form a heteromeric complex following ligand binding to the type II receptors, triggering phosphorylation and activation of the type I receptor (4). This results in the recruitment of receptor-mediated SMADs (SMAD2, SMAD3), which are phosphorylated by the type I kinase in an SSXS domain in the C-terminus. This leads to recruitment of the co-SMAD (SMAD4), and subsequent translocation of this heteromeric SMAD complex to the nucleus, where it regulates transcription of target genes (5-7). The type III receptor, also known as betaglycan, is a transmembrane proteoglycan with a large extracellular domain that binds TGF- $\beta$ with high affinity but lacks a cytoplasmic signaling domain. Expression of the type III receptor can regulate TGF- $\beta$ signaling through presentation of the ligand to the signaling complex (8).					
Background Re	eferences	1. Massagué, J. et al. (2 2. de Caestecker, M.P. 3. Derynck, R. et al. (2 4. Derynck, R. and Fer 5. Miyazono, K. et al. ( 6. Massagué, J. (2000) 7. Derynck, R. et al. (1 8. López-Casillas, F. et	2000) <i>Cell</i> 103, 295- et al. (2000) <i>J Natl</i> C 001) <i>Nat Genet</i> 29, <sup>-</sup> ng, X.H. (1997) <i>Bioch</i> (2000) <i>Adv Immuno</i> <i>Nat Rev Mol Cell Bi</i> 998) <i>Cell</i> 95, 737-40 ; al. (1991) <i>Cell</i> 67, 7	309. <i>Tancer Inst</i> 92, 1388-402. 117-29. <i>him Biophys Acta</i> 1333, F 175, 115-57. <i>ol</i> 1, 169-78. 85-95.	105-50.		
Species Reactiv	vitv	Species reactivity is du	etermined by testing	n in at least one approve	ed application (e.g., y	western blot).	
Species Reaction	illy in the second s	Species reactivity is at		g in acteuse one approve	a application (e.g., i		
Western Blot B	Buffer	IMPORTANT: For west TBS, 0.1% Tween® 20	tern blots, incubate at 4°C with gentle s	Jbate membrane with diluted primary antibody in 5% w/v BSA, 1X antle shaking, overnight.			
Applications K	ey	W: Western Blotting					
Cross-Reactivit	су Кеу	H: Human					
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