TGF-β Receptor I Antibody

#3712 Store at -20°C

For Research Use Only. Not For Use In Diagnostic Procedures.

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 thus activation of the 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 Smads, which function by transducing signals from the cell surface directly to the nucleus and regulating transcription of target genes (8,9).

Specificity/Sensitivity: TGF-β Receptor I Antibody detects endogenous levels of total TGF-β receptor I protein independent of phosphorylation.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the central intracellular region of human TGF-β receptor I. Antibodies are purified by protein A and peptide affinity chromatography.

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.

Entrez-Gene ID #7046
Swiss-Prot Acc. #P36897

Applications and Species Cross-Reactivity:

<table>
<thead>
<tr>
<th>Applications</th>
<th>Species Cross-Reactivity*</th>
<th>Molecular Wt.</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>W Endogenous</td>
<td>H, R, Mi</td>
<td>52 kDa</td>
<td>Rabbit **</td>
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</tbody>
</table>

Western blot analysis of extracts from Mv 1 Lu and Hep G2 cells using TGF-β Receptor I Antibody.

Background References:

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.

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