

# Recombinant Rat TGFB $\beta$ 1 protein (His tag)

Catalog Number: PDER100074



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

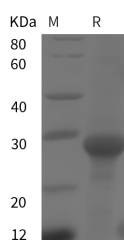
## Description

<b>Synonyms</b>	AAT5;Activin receptor like kinase 5;ACVRLK4;ALK-5;LDS1A;LDS2A;MSSE;SKR4;TbetaR I;TGF-beta receptor type-1;TGFB $\beta$ 1;Transforming growth factor beta receptor 1
<b>Species</b>	Rat
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Leu 311-Met 501
<b>Accession</b>	P80204
<b>Calculated Molecular Weight</b>	20.9 kDa
<b>Observed molecular weight</b>	28 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Please contact us for more information.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Most cell types express three sizes of receptors for TGF- $\beta$ . These are designated Type I (53 kDa), Type II (70-85 kDa), and Type III (250-350 kDa). The Type III receptor, a proteoglycan that exists in membrane-bound and soluble forms, binds TGF- $\beta$  1, TGF- $\beta$  2, and TGF- $\beta$  3 but does not appear to be involved in signal transduction. The Type II receptor is a membrane-bound serine/threonine kinase that binds TGF- $\beta$  1 and TGF- $\beta$  3 with high affinity and TGF- $\beta$  2 with a much lower affinity. The Type I receptor, originally known as ALK-5 (Activin receptor-like kinase) is also a membrane-bound serine/threonine kinase that apparently requires the presence of the Type II receptor to bind TGF- $\beta$ .

## For Research Use Only

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# Recombinant Rat TGFBR1 protein (His tag)

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Current evidence suggests that signal transduction requires the cytoplasmic domains of both the Type I and Type II receptors.

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