Product Name: Recombinant Mouse TGFBR1 (C-Fc)
Catalog #: PHM2164

Summary

Name	TGFBR1/ALK-5/TGF-beta receptor type-1
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/μg as determined by LAL test.
Construction	Recombinant Mouse TGF-beta Receptor Type-1 is produced by our Mammalian expression system and the target gene encoding Leu30-Glu125 is expressed with a human IgG1 Fc tag at the C-terminus.
Accession #	Q64729
Host	Human Cells
Species	Mouse
Predicted Molecular Mass	37.6 KDa
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Stability&Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SDS-PAGE image

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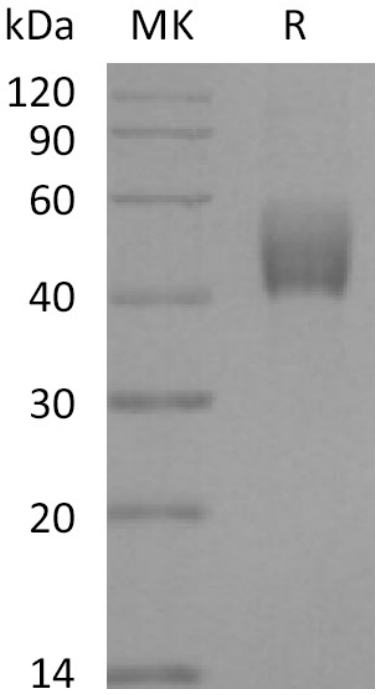

Alternative Names

AAT5; activin A receptor type II-like kinase, 53kD; ACVRLK4; ALK-5; ALK-5ALK5; LDS1A; LDS2A; SKR4; tbetaR-I; TGFB1R1; TGF-beta receptor type I; TGFbetaRI; TGFBR1; TGF-bRI; TGFR-1

Background

TGF-beta RI, also called ALK-5, is an approximately 55 kDa type I transmembrane serine/threonine receptor kinase. In the presence of TGF-beta, TGF-beta RI forms a complex with, and is phosphorylated by, TGF-beta RII. Phosphorylated TGF-beta RI can then transiently bind and phosphorylate Smad2 and Smad3. TGF-beta functions as a tumor suppressor by inhibiting the cell cycle in the G1 phase. Administration of TGF-beta is able to protect against mammary tumor development in transgenic mouse models in vivo. Disruption of the TGF-beta/SMAD pathway has been implicated in a variety of human cancers, with the majority of colon and gastric cancers being caused by an inactivating mutation of TGF-beta RII. TGF-beta RI is likely important during development, since mice deficient for TGF-beta RI die at midgestation with severe defects in vascular development of the yolk sac and placenta, and an absence of circulating red blood cells. Furthermore, TGF-beta RI appears to be involved in proper lymphatic network development.

Note

For Research Use Only , Not for Diagnostic Use.