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Product datasheet for TP726622

Tgfbr1 Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Mouse TGFBR1 (C-Fc)
Species:	Mouse
Expression cDNA Clone or AA Sequence:	Leu30-Glu125
Tag:	C-Fc
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS, pH7.4.
Note:	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 Fc tag at the C-terminus.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Locus ID:	21812
UniProt ID:	Q64729
Synonyms:	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
Summary:	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.

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