

Recombinant human TGFb-R2

Catalog No: #AG0066

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

Description

Product Name	Recombinant human TGFb-R2
Host Species	HEK293
Purification	> 95% by Tris-Bis PAGE;> 95% by SEC-HPLC
Immunogen Description	Thr39-Asn157
Target Name	TGFb-R2
Other Names	tbetaR-II; TGF-beta receptor type II; TGF-beta receptor type IIB; TGF-beta receptor type-2; TGF-beta RII; TGF-beta type II receptor; TGFbetaRII; TGFbeta-RII; TGFBR2; TGF-bRII; TGFR-2; transforming growth factor beta receptor type IIC; transforming growth factor, beta receptor II
Accession No.	Uniprot:P17173Gene ID:7048
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GeneID	7048
Target Species	human
Calculated MW	13.5 KDa
Tag Info	N-SP+10His+SUMOstar
Formulation	0.22 µm filtered solution of PBS, pH 7.4.
Storage	Aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

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 is also a membrane-bound serine/threonine kinase that apparently requires the presence of the type II receptor to bind TGF-beta. Current evidence suggests that signal transduction requires the cytoplasmic domains of both the type I and type II receptors.

The recombinant soluble TGF-beta type II receptor is capable of binding TGF-beta 1, TGF-beta 3, and TGF-beta 5 with sufficient affinity to act as an inhibitor of these isoforms at high concentrations. The soluble receptor also binds TGF-beta 2, but with an affinity at least two orders of magnitude lower. Binding of TGF-beta 1, TGF-beta 3, and TGF-beta 5 to the soluble TGF-beta type II receptor can also be demonstrated by using the soluble receptor as a capture agent on ELISA plates and this observation has been used as the basis for the development of immunoassays for these isoforms of TGF-beta.

Note: This product is for in vitro research use only