TGFBR2/TGF-beta RII Protein, Human (HEK293, Fc)

Cat. No.:	HY-P7426
Synonyms:	TGFR-2; TGF-beta type II receptor; TGF-beta receptor type 2; TbetaR-II
Species:	Human
Source:	HEK293
Accession:	P37173 (T23-D159)
Gene ID:	7048
Molecular Weight:	Approximately 55-75 kDa

PROPERTIES

AA Sequence	T I P P H V Q K S V N N D M I V T D N N G A V K F P Q L C K F C D V R F S T C D N Q K S C M S N C S I T S I C E K P Q E V C V A V W R K N D E N I T L E T V C H D P K L P Y H D F I L E D A A S P K C I M K E K K K P G E T F F M C S C S S D E C N D N I I F S E E Y N T S N P D
Biological Activity	Measured by its ability to inhibit TGF-beta 1 activity on HT-2 mouse T cells. The ED_{50} this effect is 3.527 μg/mL in the presence of 0.25 ng/mL of recombinant human TGF-beta 1, corresponding to a specific activity is 283.527 units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 20 mM PB, 150 mM NaCl, pH 7.4 or PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Transforming growth factor-beta receptor type 2 (TβRII) is a 567 amino acid single-pass type I membrane protein that contains one protein kinase domain. TβRII is the specific receptor for TGFβ ligands, and crucial for the regulation of TGFβ signaling in tumor initiation, progression, and metastasis[1]. T beta R-II (transforming growth factor beta [TGF-beta] type II receptor) is a transmembrane serine/threonine kinase that acts as the primary TGF-beta receptor. Ligand binding to T beta R-II leads to the recruitment and phosphorylation of T beta R-I, a distantly related transmembrane kinase that acts as a

downstream signaling component[2].

REFERENCES

[1]. Gao N, et al. Clinical Implications of TβRII Expression in Breast Cancer. PLoS One. 2015 Nov 9;10(11):e0141412.

[2]. Cárcamo J, et al. Disruption of transforming growth factor beta signaling by a mutation that preventstransphosphorylation within the receptor complex. Mol Cell Biol. 1995 Mar;15(3):1573-81.

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