SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-TGF beta Receptor II antibody

SL0117R

Product Name:	TGF beta Receptor II
Chinese Name:	转移生长因子β受体2抗体
Alias:	TGF beta R2; TGFBR2; TGF beta Receptor II; AAT 3; AAT3; FAA 3; FAA3; HNPCC6; MFS 2; MFS2; RIIC; TAAD 2; TAAD2; TbetaR II; TGF beta receptor type 2; TGF beta receptor type II; TGF beta type II receptor; TGFB R2; TGFbeta RII; TGFBR 2; TGFBR2; TGFR 2; TGFR2; Transforming growth factor beta receptor II; Transforming growth factor beta receptor type II;
文献引用 PubMed :	**Specific References(3)**|SL0117R has been referenced in 3 publications. **[IF=4.52]**Abdelmagid, Samir M., et al. "Mutation in Osteoactivin Reduces Bone Formation in Vivo and Osteoblast Differentiation in Vitro." The American Journal of Pathology (2014).**WB;Rat**. PubMed:24462663 **[IF=2.56]**Friedrichs, Jacqueline, et al. "TGF-β1-dependent induction and nuclear translocation of FHL2 promotes keratin expression in pilomatricoma." Virchows Archiv (2014): 1-10.**Human**. PubMed:25477051 **[IF=2.71]**Hirayama, Hiroki, et al. "Localization of TGF-β and TGF-β receptor in bovine term placentome and expression differences between spontaneous and induced parturition." Placenta (2015).**IHC-P;Bovine**. PubMed:26382756
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-

	500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	62kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human TGF beta R2:241-330/567<Cytoplasmic>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes a member of the Ser/Thr protein kinase family and the TGFB receptor subfamily. The encoded protein is a transmembrane protein that has a protein kinase domain, forms a heterodimeric complex with another receptor protein, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation. Mutations in this gene have been associated with Marfan Syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized. **Function:** Transmembrane serine/threonine kinase forming with the TGF-beta type I serine/threonine kinase receptor, TGFBR1, the non-promiscuous receptor for the TGF-beta cytokines TGFB1, TGFB2 and TGFB3. Transduces the TGFB1, TGFB2 and TGFB3 signal from the cell surface to the cytoplasm and is thus regulating a plethora of physiological and pathological processes including cell cycle arrest in epithelial and hematopoietic cells, control of mesenchymal cell proliferation and differentiation, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. The formation of the receptor complex composed of 2 TGFBR1 and 2 TGFBR2 molecules symmetrically bound to the cytokine dimer results in the phosphorylation and the activation of TGFRB1 by the constitutively active TGFBR2. Activated TGFBR1 phosphorylates SMAD2 which dissociates from the receptor and interacts with SMAD4. The SMAD2-SMAD4 complex is subsequently translocated to the nucleus where it modulates the transcription of the TGF-beta-regulated genes. This constitutes the canonical SMAD-dependent TGF-beta signaling cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways. **Subunit:** Homodimer. Heterohexamer; TGFB1, TGFB2 and TGFB3 homodimeric ligands assemble a functional receptor composed of two TGFBR1 and TGFBR2 heterodimers to

form a ligand-receptor heterohexamer. The respective affinity of TGFRB1 and TGFRB2 for the ligands may modulate the kinetics of assembly of the receptor and may explain the different biological activities of TGFB1, TGFB2 and TGFB3. Interacts with DAXX. Interacts with TCTEX1D4. Interacts with ZFYVE9; ZFYVE9 recruits SMAD2 and SMAD3 to the TGF-beta receptor.

Subcellular Location:
Cell membrane; Single-pass type I membrane protein.

Post-translational modifications:
Phosphorylated on a Ser/Thr residue in the cytoplasmic domain.

DISEASE:
Defects in TGFBR2 are the cause of hereditary non-polyposis colorectal cancer type 6 (HNPCC6) [MIM:614331]. Mutations in more than one gene locus can be involved alone or in combination in the production of the HNPCC phenotype (also called Lynch syndrome). Most families with clinically recognized HNPCC have mutations in either MLH1 or MSH2 genes. HNPCC is an autosomal, dominantly inherited disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early onset colorectal carcinoma (CRC) and extra-colonic cancers of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world, and accounts for 15% of all colon cancers. Cancers in HNPCC originate within benign neoplastic polyps termed adenomas. Clinically, HNPCC is often divided into two subgroups. Type I: hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II: patients have an increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected. HNPCC6 is a type of colorectal cancer complying with the clinical criteria of HNPCC, except that the onset of cancer was beyond 50 years of age in all cases.

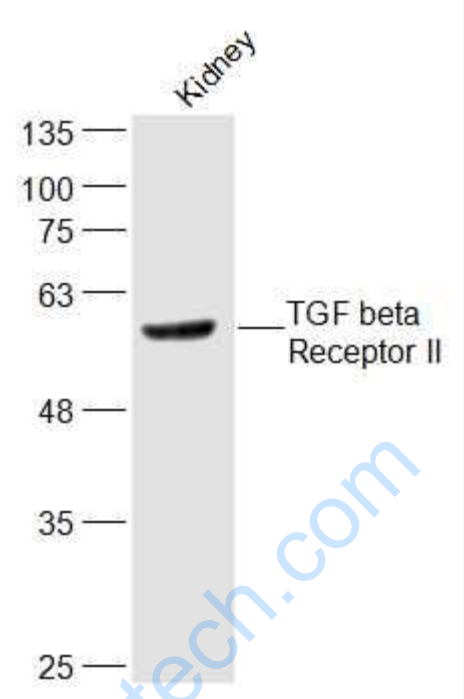
Similarity:
Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.
Contains 1 protein kinase domain.

SWISS:
P37173

Gene ID:

	7048 **Database links:** Entrez Gene: 7048 Human Entrez Gene: 21813 Mouse Omim: 190182 Human SwissProt: P37173 Human SwissProt: Q62312 Mouse Unigene: 604277 Human Unigene: 82028 Human Unigene: 172346 Mouse **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. The cell membrane受体(Membrane Receptors) TGFβR2及家族在进化过程中结构和功能高度保守。参与cell factor信号传导，调节多种细胞的生长、分化，在胚胎发育、组织器官形态发生、细胞的分化、增值及免疫调节等方面都起着重要作用。此抗体主要用于散发性胃癌、结肠癌及T细胞淋巴瘤和头颈部Tumour方面的研究。

Picture:



Sample:

Kidney (Mouse) Lysate at 40 ug

Primary: Anti-TGF beta Receptor II (SL0117R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 62 kD

Observed band size: 62 kD

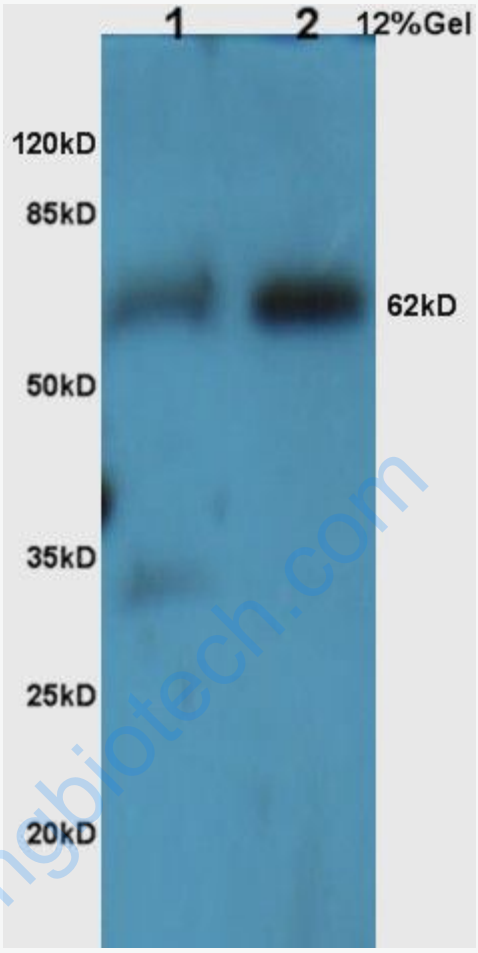
Sample: HepG2 Cell Lysate at 40 ug

Primary: Anti- TGF beta RECEPTOR Ⅱ(SL0117R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 62 kD

Observed band size: 62 kD



Sample:

Brain(Mouse) Lysate at 30 ug

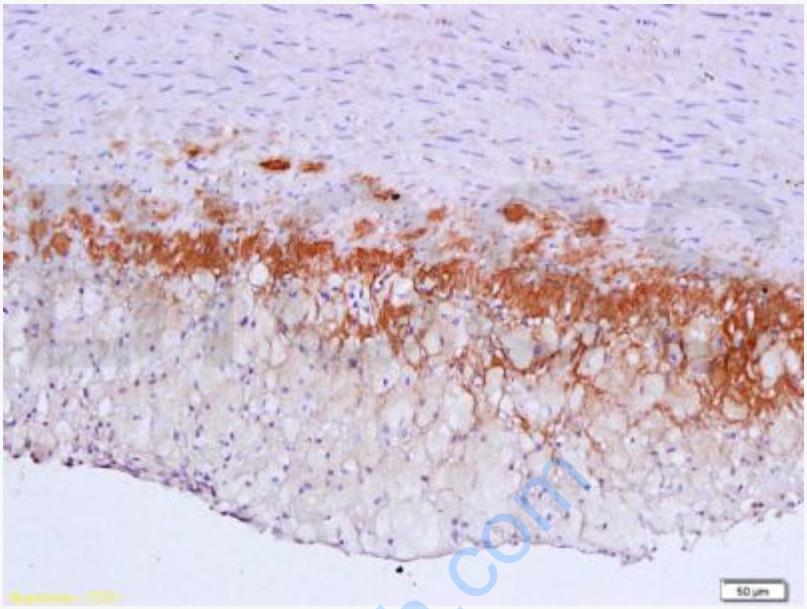
Brain(Rat) Lysate at 30 ug

Primary: Anti-TGF-beta-R2/TGFBR2 (SL0117R) at 1/300 dilution

Secondary:IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 62 kD

Observed band size: 62 kD



Tissue/cell:rabbit carotid artery; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-TGF-beta-R2/TGFBR2 Polyclonal Antibody, Unconjugated(SL0117R) 1:600, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining