

Rabbit Anti-TSPAN12 antibody

SL10425R

Product Name	TSPAN12
Chinese Name	四分子交联体 12/四旋蛋白抗体
Alias	TSPAN 12; NET 2; NET2; Tetraspan NET 2; Tetraspanin 12; Tetraspanin12; TM4SF12; Transmembrane 4 superfamily member 12; TSN12_HUMAN.
Research Area	Cell biology Neurobiology Signal transduction
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Rat, (predicted: Mouse, Chicken, Pig, Cow, Horse, Rabbit,) IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	35kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human TSPAN12: 1-100/305
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product	The protein encoded by this gene is a member of the transmembrane 4 superfamily,

Detail

also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. [provided by RefSeq, Jul 2008]

Function:

Regulator of cell surface receptor signal transduction. Plays a central role in retinal vascularization by regulating norrin (NDP) signal transduction. Acts in concert with norrin (NDP) to promote FZD4 multimerization and subsequent activation of FZD4, leading to promote accumulation of beta-catenin (CTNNB1) and stimulate LEF/TCF-mediated transcriptional programs. Surprisingly, it only activate the norrin (NDP)-dependent activation of FZD4, while it does not activate the Wnt-dependent activation of FZD4, suggesting the existence of a Wnt-independent signaling that also promote accumulation the beta-catenin (CTNNB1) (By similarity). Acts as a regulator of membrane proteinases such as ADAM10 and MMP14/MT1-MMP. Activates ADAM10-dependent cleavage activity of amyloid precursor protein (APP). Activates MMP14/MT1-MMP-dependent cleavage activity.

Subunit:

Component of a complex, at least composed of TSPAN12, FZD4 and norrin (NDP). Interacts (when palmitoylated) with ADAM10. Interacts with MMP14/MT1-MMP.

Subcellular Location:

Cell membrane; Multi-pass membrane protein.

Post-translational modifications:

Palmitoylated; required for interaction with ADAM10. The precise position of palmitoylated residues is unclear and occurs either on Cys-9, Cys-12 and/or Cys-83.

DISEASE:

Defects in TSPAN12 are the cause of vitreoretinopathy exudative type 5 (EVR5) [MIM:613310]. It is a disorder of the retinal vasculature characterized by an abrupt cessation of growth of peripheral capillaries, leading to an avascular peripheral retina. This may lead to compensatory retinal neovascularization, which is thought to be induced by hypoxia from the initial avascular insult. New vessels are prone to leakage and rupture causing exudates and bleeding, followed by scarring, retinal detachment and blindness. Clinical features can be highly variable, even within the same family. Patients with mild forms of the disease are asymptomatic, and their only disease related abnormality is an arc of avascular retina in the extreme temporal periphery. Note=TSPAN12 dominant and recessive mutations have been identified in patients with exudative vitreoretinopathy. Patients with mutations in both alleles of TSPAN12 have severe exudative vitreoretinopathy or retinal dysplasia. These mutations appear to result in a milder phenotype in heterozygous mutation carriers (PubMed:22427576).

Similarity:

Belongs to the tetraspanin (TM4SF) family.

SWISS:

O95859

Gene ID:

23554

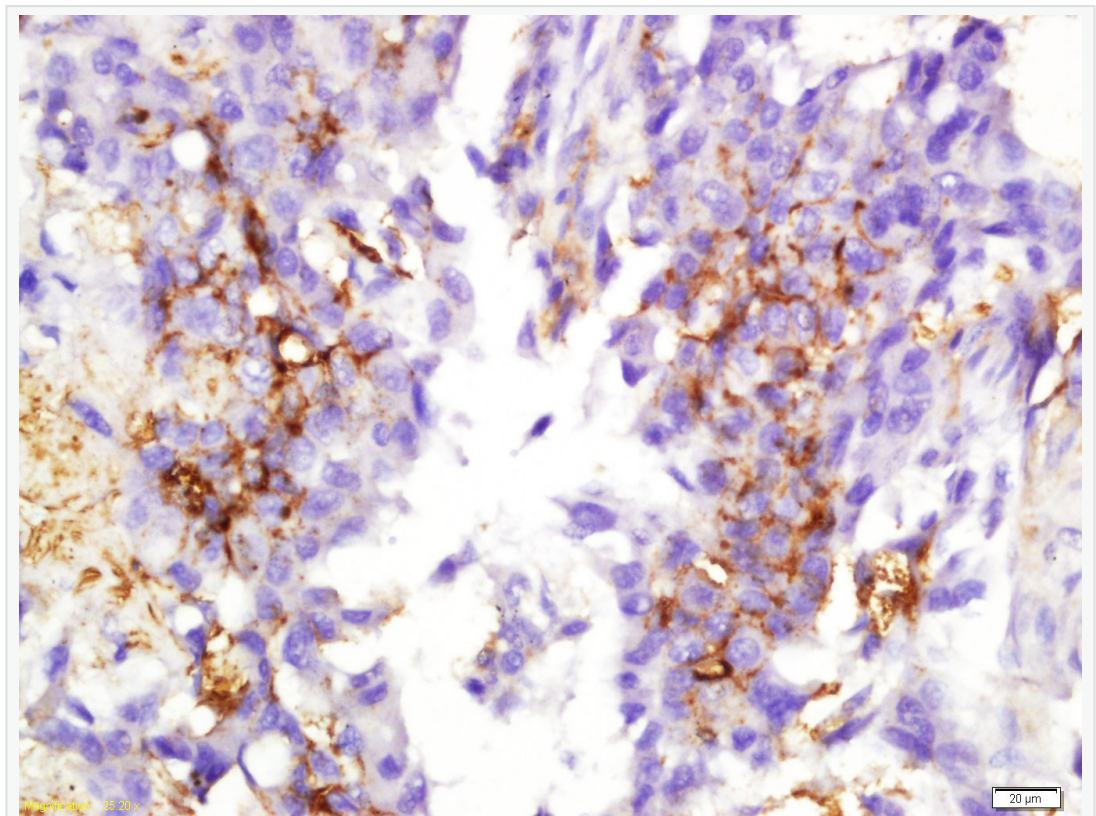
Database links:

[Entrez Gene: 23554](#) Human

[Omim: 613138](#) Human

[SwissProt: O95859](#) Human

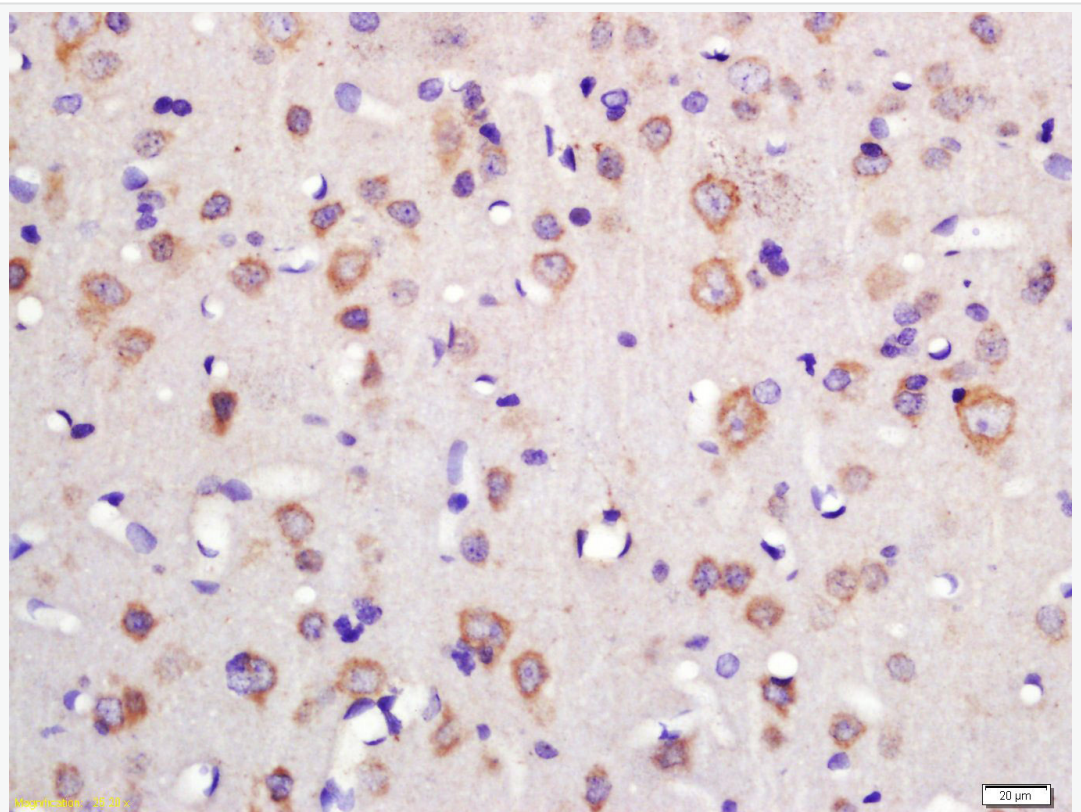
**Product
Picture**



Tissue/cell: human lung cancer; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, 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°C for 20 min;

Incubation: Anti-TSPAN12 Polyclonal Antibody, Unconjugated(SL10425R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, 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°C for 20 min;

Incubation: Anti-TSPAN12 Polyclonal Antibody, Unconjugated(SL10425R)

1:200, overnight at 4°C, followed by conjugation to the secondary

antibody(SP-0023) and DAB(C-0010) staining