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TSPAN5 Rabbit pAb

Catalog # AP97928

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P62079
Other Accession	P62079
Reactivity	Rat, Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30337
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TSPAN5
Epitope Specificity	21-130/268
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the tetraspanin (TM4SF) family.
SUBUNIT	Monomer. Under normal conditions, interacts with HSP90AA1in the HSP90 multichaperone complex; the interaction preventstrimerization and activation of HSF1. On activation by heat-stressor by other factors such as metal ions, HSF1 is released from thecomplex, homotrimerizes, is hyperphosphorylated and translocated tothe nucleus where, subsequently, it can activate transcription.Binds the complex through the regulatory domain. Interacts withSYMPK and CSTF2 in heat-stressed cells. Interacts with FKBP4 in theHSP90 multichaperone complex; the interaction is independent of thephosphorylation state of HSF1. Interacts with MAPKAPK2.
Post-translational modifications	Phosphorylated on multiple serine residues, a subset of whichare involved in stress-related regulation of transcriptionactivation. Constitutive phosphorylation represses transcriptionalactivity at normal temperatures. Levels increase on specificresidues heat-shock and enhance HSF1 transactivation activity.Phosphorylation on Ser-307 derepresses activation on heat-stressand in combination with Ser-303 phosphorylation appears to beinvolved in recovery after heat-stress. Phosphorylated on Ser-230by CAMK2, in vitro. Cadmium also enhances phosphorylation at thissite. Phosphorylation on Ser-303 is a prerequisite for HSF1sumoylation. Phosphorylation on Ser-121 inhibits transactivationand promotes HSP90 binding. Phosphorylation on Thr-142 alsomediates transcriptional activity induced by heat.Sumoylated with SUMO1 and SUMO2 on heat-shock. Heat-induciblesumoylation occurs after 15 min of heat-shock, after which levelsdecrease and at 4 hours, levels return to control levels.Sumoylation has no effect on HSE binding nor on transcriptionalactivity. Phosphorylation on Ser-303 is a prerequisite forsumoylation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TSPAN5 is a member of the transmembrane 4 superfamily, 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.

Additional Information

Gene ID	10098
Other Names	NET-4; NET4; TM4SF9; TSPAN-5; 2810455A09Rik; 4930505M03Rik; TSN5_BOVIN; TSPAN5; TSN5_HUMAN; Tetraspan NET-4; Transmembrane 4 superfamily member 9; TSN5_MOUSE; TSN5_RAT; tetraspanin 5
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	TSPAN5 (HGNC:17753)
Synonyms	TM4SF9
Function	Part of TspanC8 subgroup, composed of 6 members that interact with the transmembrane metalloprotease ADAM10. This interaction is required for ADAM10 exit from the endoplasmic reticulum and for enzymatic maturation and trafficking to the cell surface as well as substrate specificity. Different TspanC8/ADAM10 complexes have distinct substrates (PubMed:26686862, PubMed:28600292, PubMed:37516108). Promotes ADAM10-mediated cleavage of CD44 (PubMed:26686862). Seems to regulate VE-cadherin expression in endothelial cells probably through interaction with ADAM10, promoting leukocyte transmigration (PubMed:28600292).
Cellular Location	Cell membrane; Multi-pass membrane protein

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