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Rabbit Anti-Phospho-Caveolin-1 (Tyr14) antibody

SL3480R

Product Name:	Phospho-Caveolin-1 (Tyr14)
Chinese Name:	磷酸化细胞质膜微囊蛋白-1抗体
Alias:	Caveolin-1(Phospho-Tyr14); p-Caveolin-1(Tyr14); Caveolin-1(Phospho-T14); opamine D3 receptor; Caveolin1; Caveolin 1; 3 dopamine receptor; D; Dopamine receptor D3; DRD; ETM1; FET1; Cav-1; ETM1; CAV 1; CAV1; CAV1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=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:	20kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human Caveolin-1 around the phosphorylation site of Tyr14:HL(p-Y)TV
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:	The scaffolding protein encoded by this gene is the main component of the caveolae plasma membranes found in most cell types. The protein links integrin subunits to the

tyrosine kinase FYN, an initiating step in coupling integrins to the Ras-ERK pathway and promoting cell cycle progression. The gene is a tumor suppressor gene candidate and a negative regulator of the Ras-p42/44 MAP kinase cascade. CAV1 and CAV2 are located next to each other on chromosome 7 and express colocalizing proteins that form a stable hetero-oligomeric complex. By using alternative initiation codons in the same reading frame, two isoforms (alpha and beta) are encoded by a single transcript from this gene. [provided by RefSeq].

Function:
May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway.

Subunit:
Homooligomer. Interacts with GLIPR2, NOSTRIN, SNAP25 and syntaxin. Interacts with rotavirus A NSP4. Interacts (via the N-terminus) with DPP4; the interaction is direct. Interacts with CTNNB1, CDH1 and JUP. Interacts with BMX and BTK.

Subcellular Location:
Golgi apparatus membrane;Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae.

Tissue Specificity:
Expressed in muscle and lung, less so in liver, brain and kidney.

Post-translational modifications:
The initiator methionine for isoform Beta is removed during or just after translation. The new N-terminal amino acid is then N-acetylated.
Phosphorylated at Tyr-14 by ABL1 in response to oxidative stress.

DISEASE:
Defects in CAV1 are the cause of congenital generalized lipodystrophy type 3 (CGL3) [MIM:612526]; also called Berardinelli-Seip congenital lipodystrophy type 3 (BSCL3). Congenital generalized lipodystrophies are autosomal recessive disorders characterized by a near absence of adipose tissue, extreme insulin resistance, hypertriglyceridemia, hepatic steatosis and early onset of diabetes.

Similarity:
Belongs to the caveolin family.

SWISS:

Q03135

Gene ID:
857

Database links:

Entrez Gene: 403980Dog

Entrez Gene: 857Human

Entrez Gene: 12389Mouse

Entrez Gene: 25404Rat

Omim: 601047Human

SwissProt: P33724Dog

SwissProt: Q03135Human

SwissProt: P49817Mouse

SwissProt: P41350Rat

Unigene: 3850Dog

Unigene: 74034Human

Unigene: 28278Mouse

Unigene: 470537Mouse

Unigene: 22518Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

信号传导(Signaling Intermediates)
Caveolin-1(小凹蛋白)是细胞生长相关信号途径及Tumour发生发展过程中重要的抑制因子，Caveolae是The cell membrane内的特殊膜结构，参与包括细胞的分子运输、细胞粘附和Signal transduction在内的多种细胞活动。Caveolin-1是Caveolae中重要的结构蛋白，抑制细胞生长，与多种人类Tumour发生发展相关的信号分子相互作用。Caveolin在Signal transduction的整合中起支架蛋白的作用。