10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PVRL1 Rabbit pAb

Catalog # AP97598

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q15223
Other Accession	Q15223
Reactivity	Rat, Human, Mouse
Predicted	Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57158
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PVRL1/CD111/Nectin1
Epitope Specificity	31-130/517
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 nectin family. Contains 2 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
SUBUNIT	Can form trans-heterodimers with PVRL3/nectin-3 and with PVRL4/nectin-4. Interacts (via C-terminus) with afadin (via PDZ domain); this interaction recruits PVRL1 to cadherin-based adherens junctions. Interacts with integrin alphaV/beta3. Interacts with herpes simplex virus 1 (HHV-1), herpes simplex virus 2 (HHV-2), and pseudorabies virus (PRV) envelope glycoprotein D; functions as an entry receptor for these viruses.
DISEASE	Defects in PVRL1 are the cause of ectodermal dysplasia Margarita Island type (EDMI) [MIM:225060]; also known as Zlotogora-Ogur syndrome, cleft lip/palate-ectodermal dysplasia syndrome (CLPED1) or ectodermal dysplasia 4. Ectodermal dysplasia defines a heterogeneous group of disorders due to abnormal development of two or more ectodermal structures. EDMI is an autosomal recessive syndrome characterized by the association of cleft lip/palate, ectodermal dysplasia (sparse short and dry scalp hair, sparse eyebrows and eyelashes), and partial syndactyly of the fingers and/or toes. Two thirds of the patients do not manifest oral cleft but present with abnormal teeth and nails.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Nectin is a Ca2+-independent homophilic cell adhesion molecule that belongs to the immunoglobulin superfamily. Human Nectin is identical to the poliovirus receptor-related protein (PRR) and is identified to be the alphaherpesvirus entry mediator. Nectin constitutes a family consisting of at least nectin 1, 2 and 3. Nectin 2 and 3 are ubiquitously expressed, whereas nectin 1 is abundantly expressed in the brain. Nectin 1 exists as nectin 1 □and 1∫/HIgR, produced by alternative splicing. The cytoplasmic regions of Nectin 1 □ but not Nectin 1∫/HIgR, have a C-terminal conserved motif (E/A-X-Y-V). This motif interacts with the PDZ domain of the F-Actin-binding protein, afadin, through which it is linked to the Actin cytoskeleton. Nectin 1, also designated HveC/ PRR1, allows the entry of herpes simplex virus type 1

(HSV-1) and HSV-2 into mammalian cells. The interaction of virus envelope glycoprotein D (gD) with nectin 1 is an essential step in the process leading to membrane fusion; the gD binding site is located at the first Ig-like domain of Nectin 1. Both the transinteraction of nectin and the interaction of nectin with afadin are necessary for their co-localization with E-cadherin and catenins at adherens junctions.

Additional Information

Gene ID	5818
Other Names	CD111; CLPED1; ED4; HIgR; HV1S; HVEC; OFC7; PRR; PRR1; PVRL1; PVRR; PVRR1; SK-12; nectin-1; NECT1_HUMAN; NECTIN1; Herpes virus entry mediator C (Herpesvirus entry mediator C | HveC); Herpesvirus Ig-like receptor (HIgR); Nectin cell adhesion molecule 1; Poliovirus receptor-related protein 1; NECT1_MOUSE; NECT1_PIG; poliovirus receptor-related 1 (herpesvirus entry mediator C); nectin
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	NECTIN1 {ECO:0000303|PubMed:11356977, ECO:0000312|HGNC:HGNC:9706}
Function	Cell adhesion molecule that promotes cell-cell contacts and plays important roles in the development of the nervous system (PubMed:21325282). Acts by forming homophilic or heterophilic trans- dimers (PubMed:21325282). Heterophilic interactions have been detected between NECTIN1 and NECTIN3 and between NECTIN1 and NECTIN4 (By similarity). Involved in axon guidance by promoting contacts between the commissural axons and the floor plate cells (By similarity). Involved in synaptogegesis (By similarity). Has some neurite outgrowth- promoting activity (By similarity). Promotes formation of checkerboard- like cellular pattern of hair cells and supporting cells in the auditory epithelium via heterophilic interaction with NECTIN3: NECTIN1 is present in the membrane of hair cells and associates with NECTIN3 on supporting cells, thereby mediating heterotypic adhesion between these two cell types (By similarity). Required for enamel mineralization (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell junction, adherens junction. Presynaptic cell membrane {ECO:0000250|UniProtKB:Q9JKF6}; Single-pass type I membrane protein Note=In the auditory epithelium, specificaly localizes to the apical side of the lateral membranes of hair cells {ECO:0000250|UniProtKB:Q9JKF6} [Isoform Delta]: Cell membrane; Single-pass type I membrane protein

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.