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EVER1 Antibody

Catalog # ASC10671

Product Information

Application	WB, E, IHC-P
Primary Accession	Q7Z403
Other Accession	AAM44452, 25527208
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	90045
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	EVER1 antibody can be used for the detection of EVER1 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL.

Additional Information

Gene ID	11322
Other Names	Transmembrane channel-like protein 6, Epidermodysplasia verruciformis protein 1, Protein LAK-4, TMC6, EVER1, EVIN1
Target/Specificity	TMC6; At least four isoforms of EVER1 are known to exist. This EVER1 antibody does not cross-react with EVER2.
Reconstitution & Storage	EVER1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	EVER1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TMC6 (HGNC:18021)
Function	Acts as a regulatory protein involved in the regulation of numerous cellular processes (PubMed:18158319, PubMed:30068544, PubMed:32917726). Together with its homolog TMC8/EVER2, forms a complex with CIB1 in lymphocytes and keratynocytes where TMC6 and TMC8 stabilize CIB1 and reciprocally (PubMed:30068544, PubMed:32917726). Together with TMC8, also forms a complex with and activates zinc transporter ZNT1 at the ER membrane of keratynocytes, thereby facilitating zinc uptake into the ER (PubMed:18158319). Down-regulates the activity of transcription factors

	induced by zinc and cytokines (PubMed:18158319). Also plays a role in thermal sensation by inhibiting the M-channel (KCNQ2-KCNQ3 channel) current in primary sensory neurons (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Nucleus membrane; Multi-pass membrane protein. Note=Localizes to the ER, Golgi and nucleus membranes in keratinocytes.
Tissue Location	Expressed in placenta, prostate, testis, activated T-lymphocytes and lymphokine-activated killer (LAK) lymphocytes {ECO:0000269|PubMed:12906855, ECO:0000269|Ref.3}

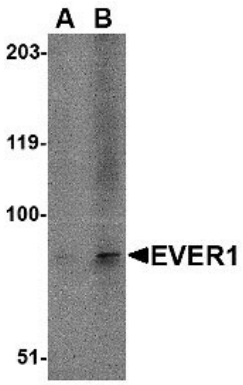
Background

EVER1 Antibody: Epidermodysplasia verruciformis (EV) is an autosomal recessive dermatosis characterized by abnormal susceptibility to human papillomaviruses (HPVs) and a high rate of progression to squamous cell carcinoma on sun-exposed skin. EV is caused by mutations in either of two adjacent genes, EVER1 and EVER2, located on chromosome 17q25.3. Both of these genes encode integral membrane proteins that localize to the endoplasmic reticulum and are predicted to form transmembrane channels. Both EVER1 and EVER2 are members of the transmembrane channel-like (TMC) protein family. EVER1 possesses eight trans-membrane domains and two leucine zipper motifs. EVER1 and EVER2 form a complex and interact with the zinc transporter 1 (ZnT-1), suggesting that EVER1 and EVER2 act to regulate cellular zinc balance.

References

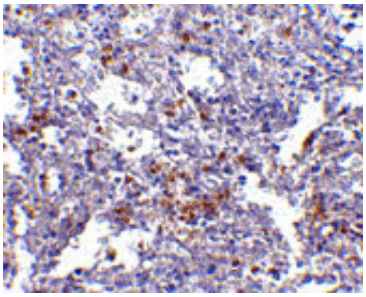
Majewski S, Jablonska J and Orth G. Epidermodysplasia verruciformis. Immunological and nonimmunological surveillance mechanisms: role in tumor progression. Clin. Dermatol.1997; 15:321-34.
Ramoz N, Rueda L-A, Bouadjar B, et al. Mutations in two adjacent novel genes are associated with epidermodysplasia verruciformis. Nat. Genetics2002; 32:579-81.
Keresztes G, Mutai H and Heller S. TMC and EVER genes belong to a larger novel family, the TMC gene family encoding transmembrane proteins. BMC Genomics2003; 4:24-34.
Lazarczyk L, Pons C, Mendoza JA, et al. Regulation of cellular zinc balance as a potential mechanism of EVER-mediated protection against pathogenesis by cutaneous oncogenic human papillomaviruses. J. Exp. Med.2008; 205:35-42.

Images



Western blot analysis of EVER1 in A-20 cell lysate with EVER1 antibody at (A) 1 and (B) 2 µg/mL.

Immunohistochemistry of EVER1 in human spleen with EVER1 antibody at 2.5 µg/mL.



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