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

EVER2 Antibody

Catalog # ASC10716

Product Information

Application	WB, E
Primary Accession	Q8IU68
Other Accession	AAM44454, 25527192
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	81641
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	EVER2 antibody can be used for detection of EVER2 by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	147138
Other Names	Transmembrane channel-like protein 8, Epidermodysplasia verruciformis protein 2, TMC8, EVER2, EVIN2
Target/Specificity	TMC8; At least two isoforms of EVER2 are known to exist; this antibody will only recognize the larger isoform. EVER2 has no cross-reactivity to EVER1.
Reconstitution & Storage	EVER2 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	EVER2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TMC8 (HGNC:20474)
Function	Acts as a regulatory protein involved in the regulation of numerous cellular processes (PubMed:18158319, PubMed:23429285, PubMed:30068544, PubMed:32917726). Together with its homolog TMC6/EVER1, forms a complex with calcium-binding protein CIB1 in lymphocytes and keratynocytes where TMC6 and TMC8 stabilize CIB1 levels and reciprocally (PubMed:30068544, PubMed:32917726). Together with TMC6, 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). Also inhibits receptor-mediated calcium release from ER stores and calcium activated and

volume regulated chloride channels (PubMed:25220380). Down-regulates the activity of transcription factors induced by zinc and cytokines (PubMed:18158319). Also sequesters TRADD which impairs the recruitment of TRAF2 and RIPK1 in the pro-survival complex I and promotes proapoptotic complex II formation, and may therefore be involved in TNF-induced cell death/survival decisions (PubMed:23429285).

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 and testis.

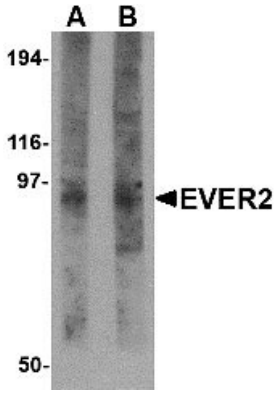
Background

EVER2 Antibody: Epidermodysplasia verruciformis (EV) is an autosomal recessive genodermatosis associated with a high risk of skin cancers resulting from a high susceptibility to infection by specific human papillomaviruses. Mutations in two homologous genes EVER1 and EVER2 cause the majority of EV cases. These two proteins form a complex and interact with the zinc transporter ZnT-1 in the endoplasmic reticulum. Cells lacking EVER2 accumulated higher levels of zinc in the nucleolus and nucleus compare to those cells with and intact EVER2 gene, indicating that one role of EVER2 is to regulate the intracellular distribution of zinc.

References

Ramoz N, Taieb A, Rueda L-A, et al. Evidence for a nonallelic heterogeneity of epidermodysplasia verruciformis with two susceptibility loci mapped to chromosome regions 2p21-p24 and 17q25. J. Invest. Dermatol.2000; 114:1148-53.
Ramoz N, Rueda L-A, Bouadjar B, et al. Mutations in two adjacent novel genes are associated with epidermodysplasia verruciformis. Nat. Genet.2002; 32:579-81.
Lazarczyk M, Pons C, Mendoza J-A, 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 EVER2 in rat thymus tissue lysate with EVER2 antibody at (A) 1 and (B) 2 µg/mL.

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