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DCD Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6718b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P81605
Reactivity	Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18706
Calculated MW	11284
Antigen Region	74-103

Additional Information

Gene ID	117159
Other Names	Dermcidin, 34--, Preproteolysin, Survival-promoting peptide, DCD-1, DCD, AIDD, DSEP
Target/Specificity	This DCD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 74-103 amino acids from the C-terminal region of human DCD.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DCD Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DCD (HGNC:14669)
Function	[DCD-1]: Found in sweat, has an antimicrobial activity during early bacterial colonization (PubMed:11694882, PubMed:23426625). The secreted peptide

	assembles into homohexameric complexes that can associate with and also insert into pathogen membranes (PubMed:23426625). Once inserted in bacteria membranes forms anion channels probably altering the transmembrane potential essential for bacterial survival (PubMed:23426625). Highly effective against E.coli, E.faecalis, S.aureus and C.albicans (PubMed:11694882). Optimal pH and salt concentration resemble the conditions in sweat (PubMed:11694882). Also exhibits proteolytic activity, cleaving on the C-terminal side of Arg and, to a lesser extent, Lys residues (PubMed:17448443).
Cellular Location	Secreted [DCD-1]: Secreted. Membrane; Peripheral membrane protein. Membrane; Single-pass membrane protein. Note=The secreted peptide assembles into homohexameric complexes that can probably associate with pathogen membranes and also insert into these membranes where they behave as channels.
Tissue Location	Detected in urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717). Constitutively expressed in eccrine sweat gland cells (at protein level). Secreted into the sweat at a concentration of 1-10 micrograms/ml

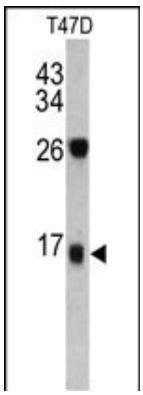
Background

DCD is a secreted protein that is subsequently processed into mature peptides of distinct biological activities. The C-terminal peptide is constitutively expressed in sweat and has antibacterial and antifungal activities. The N-terminal peptide, also known as diffusible survival evasion peptide, promotes neural cell survival under conditions of severe oxidative stress. A glycosylated form of the N-terminal peptide may be associated with cachexia (muscle wasting) in cancer patients.

References

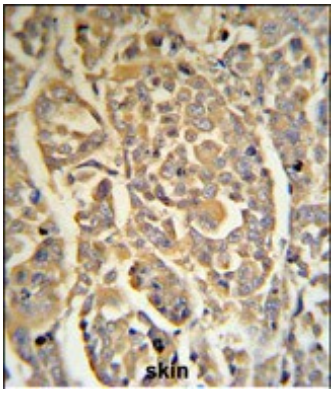
Todorov,P.T., J. Biol. Chem. 272 (19), 12279-12288 (1997)

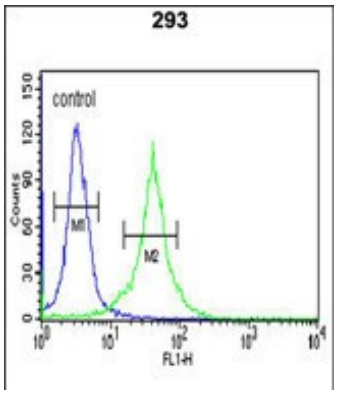
Images



Western blot analysis of DCD antibody (C-term) (Cat. #AP6718b) in T47D cell line lysates (35ug/lane). DCD (arrow) was detected using the purified Pab.

DCD Antibody (C-term) (RB18706) IHC analysis in formalin fixed and paraffin embedded human skin tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DCD Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.





DCD Antibody (C-term) (Cat. #AP6718b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Dermcidin exerts its oncogenic effects in breast cancer via modulation of ERBB signaling.

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