

DCD Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6718b

Specification

DCD Antibody (C-term) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Antigen Region FC, IHC-P, WB,E P81605 Human Rabbit Polyclonal Rabbit IgG 74-103

DCD Antibody (C-term) - 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 $FC \sim 1:10 \sim 50$ $IHC-P \sim 1:50 \sim 100$ $WB \sim 1:1000$ $E \sim ~Use$ 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.

DCD Antibody (C-term) - Protein Information

Name DCD (<u>HGNC:14669</u>)

Function [DCD-1]: Found in sweat, has an antimicrobial activity during early bacterial colonization



(PubMed:<u>11694882</u>, PubMed:<u>23426625</u>). The secreted peptide assembles into homohexameric complexes that can associate with and also insert into pathogen membranes (PubMed:<u>23426625</u>). Once inserted in bacteria membranes forms anion channels probably altering the transmembrane potential essential for bacterial survival (PubMed:<u>23426625</u>). Highly effective against E.coli, E.faecalis, S.aureus and C.albicans (PubMed:<u>11694882</u>). Optimal pH and salt concentration resemble the conditions in sweat (PubMed:<u>11694882</u>). Also exhibits proteolytic activity, cleaving on the C-terminal side of Arg and, to a lesser extent, Lys residues (PubMed:<u>17448443</u>).

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

DCD Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>

DCD Antibody (C-term) - 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.

DCD Antibody (C-term) - 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.

DCD Antibody (C-term) - References

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

DCD Antibody (C-term) - Citations

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