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

DSG2 Antibody (N-term T160)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7795a

Specification

DSG2 Antibody (N-term T160) - Product Information

Application	**FC, WB,E**
Primary Accession	Q14126
Other Accession	NP_001934
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**122294**
Antigen Region	**145-216**

DSG2 Antibody (N-term T160) - Additional Information

Gene ID 1829

Other Names
Desmoglein-2, Cadherin family member 5, HDGC, DSG2, CDHF5

Target/Specificity
This DSG2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 145-216 amino acids from the N-terminal region of human DSG2.

Dilution
FC~~1:10~50
WB~~1:1000
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
DSG2 Antibody (N-term T160) is for research use only and not for use in diagnostic or therapeutic procedures.

DSG2 Antibody (N-term T160) - Protein Information

Name DSG2

Synonyms CDHF5

Function A component of desmosome cell-cell junctions which are required for positive regulation of cellular adhesion (PubMed:17559062, PubMed:38395410). Involved in the interaction of plaque proteins and intermediate filaments mediating cell-cell adhesion. Required for proliferation and viability of embryonic stem cells in the blastocyst, thereby crucial for progression of post-implantation embryonic development (By similarity). Maintains pluripotency by regulating epithelial to mesenchymal transition/mesenchymal to epithelial transition (EMT/MET) via interacting with and sequestering CTNNB1 to sites of cell-cell contact, thereby reducing translocation of CTNNB1 to the nucleus and subsequent transcription of CTNNB1/TCF-target genes (PubMed:29910125). Promotes pluripotency and the multi-lineage differentiation potential of hematopoietic stem cells (PubMed:27338829). Plays a role in endothelial cell sprouting and elongation via mediating the junctional-association of cortical actin fibers and CDH5 (PubMed:27338829). Promotes cardiomyocyte cell homeostasis and desmosome junction formation at intercalated disks, as a result plays a role in the maintenance of cardiac conduction and heart chamber integrity (By similarity). Positively regulates pancreatic islet development and maintenance of endothelial cell barrier integrity in the pancreas, therefore involved in the controlled release of insulin from islet cells into the circulation in response to glucose (By similarity). Plays a role in limiting inflammatory infiltration and the apoptotic response to injury in kidney tubular epithelial cells, potentially via its role in maintaining cell-cell adhesion and the epithelial barrier (PubMed:38395410). Acts as a positive modulator of CSK and EGFR activation via sequestering them away from lipid rafts, this is independent of its role in desmosome cell junctions (PubMed:26918609). Also disrupts the localization of CAV1 to lipid rafts resulting in its distribution throughout the cytoplasm (PubMed:26918609).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell junction, desmosome. Cytoplasm. Note=Localized to intercalated disks in the heart (PubMed:31845994). Localizes to the cytoplasm following cleavage by CASP3 in response to apoptosis (PubMed:17559062) Glycosylation promotes localization to the plasma membrane (PubMed:30885746).

Tissue Location
Expressed in undifferentiated pluripotent stem cells, expression decreases during differentiation (at protein level) (PubMed:29910125). Expressed in hematopoietic stem cells and circulating endothelial progenitor cells, expression decreases upon increasing cell lineage commitment (at protein level) (PubMed:27338829). Expressed on common myeloid progenitors, pro- myelocytes, pro-erythrocytes and B-cell linage progenitors (at protein level). Expression in mature cell types in the bone marrow and mature leukocyte populations is absent (PubMed:27338829). Expressed by foreskin fibroblasts, expression peaks during the early stage of differentiation reprogramming (at protein level) (PubMed:29910125) Expressed by endothelial cells in both arterioles and venules in the cervix (at protein level) (PubMed:27338829). Expressed in pancreatic alpha-cells, beta-cells and exocrine tissue (at protein level) (PubMed:36309486). Expressed in cardiomyocytes (at protein level) (PubMed:31845994, PubMed:38375917). Expressed in kidney tubular epithelial cells (PubMed:38395410).

DSG2 Antibody (N-term T160) - Protocols

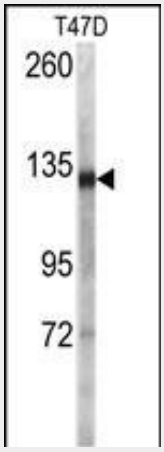
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

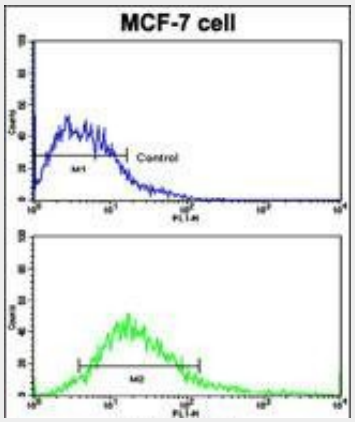
10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

- Flow Cytomety
- Cell Culture

DSG2 Antibody (N-term T160) - Images



Western blot analysis of anti-DSG2 Antibody (N-term T160) (AP7795a) in T47D cell line lysates (35ug/lane). DSG2 (arrow) was detected using the purified Pab.



Flow cytometric analysis of MCF-7 cells using DSG2 Antibody (N-term T160) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

DSG2 Antibody (N-term T160) - Background

Desmosomes are cell-cell junctions between epithelial, myocardial, and certain other cell types. This protein is a calcium-binding transmembrane glycoprotein component of desmosomes in vertebrate epithelial cells. Currently, three desmoglein subfamily members have been identified and all are members of the cadherin cell adhesion molecule superfamily. These desmoglein gene family members are located in a cluster on chromosome 18. This second family member is expressed in colon, colon carcinoma, and other simple and stratified epithelial-derived cell lines. Mutations in the DSG2 gene have been associated with arrhythmogenic right ventricular dysplasia, familial, 10.

DSG2 Antibody (N-term T160) - References

Posch,M.G., Mol. Genet. Metab. 95 (1-2), 74-80 (2008)
Yu,C.C., J. Formos. Med. Assoc. 107 (7), 548-558 (2008)