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Dsg2 Antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI12552

Product Information

Application	WB
Primary Accession	O55111
Other Accession	NM_007883, NP_031909
Reactivity	Human, Mouse, Rat, Rabbit, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	122385

Additional Information

Gene ID	13511
Alias Symbol	AA408168, D18Ertd293e
Other Names	Desmoglein-2, Dsg2
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Dsg2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Dsg2 Antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Dsg2
Function	A component of desmosome cell-cell junctions which are required for positive regulation of cellular adhesion (By similarity). 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 (PubMed:12494996). 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 (By similarity). 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 (PubMed:19635863, PubMed:26085008, PubMed:36268721). 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 (PubMed:36309486). 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 (By similarity). Also disrupts the localization of CAV1 to lipid rafts resulting in its distribution throughout the cytoplasm (By similarity).

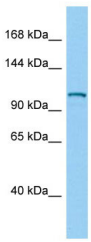
Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q14126}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q14126} Cell junction, desmosome. Cytoplasm {ECO:0000250|UniProtKB:Q14126} Note=Localized to intercalated disks in the heart (PubMed:36268721) Localizes to the cytoplasm following cleavage by CASP3 in response to apoptosis (By similarity). Glycosylation promotes localization to the plasma membrane (By similarity). {ECO:0000250|UniProtKB:Q14126, ECO:0000269|PubMed:36268721}

Tissue Location

Expressed in undifferentiated pluripotent stem cells, expression decreases during differentiation (at protein level) (PubMed:29910125). Expressed by embryonic stem cells, expression is reduced during differentiation (at protein level) (PubMed:29910125) Expressed at the apical-lateral cell membrane of kidney tubular epithelial cells (at protein level) (PubMed:38395410). Expressed in epidermis and heart (at protein level) (PubMed:12787123, PubMed:38395410). Expressed in cardiomyocytes (at protein level) (PubMed:26085008, PubMed:36268721). Expressed in pancreatic alpha- cells, beta-cells and exocrine tissue (at protein level) (PubMed:36309486). Expressed in pancreatic vasculature tissue (at protein level) (PubMed:36309486). Expressed in the brain, spleen, lung, liver skeletal muscle, kidney and testis (PubMed:12787123)

Images



Host: Rabbit
Target Name: Dsg2
Sample Tissue: Mouse Testis lysates
Antibody Dilution: 1.0µg/ml

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