

## Technical Data Sheet

## Purified Mouse Anti-Desmoglein

## Product Information

Material Number:	610273
Alternate Name:	Dsg1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	62/Desmoglein
Immunogen:	Human Desmoglein aa. 705-1029
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog, Chicken, Drosophila
Target MW:	165 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

## Description

Desmoglein (Dsg1) is a transmembrane glycoprotein found in desmosome junctions. Desmosomes and adherens junctions are plasma membrane specializations involved in cell-cell adhesion. They serve as membrane anchorage domains for intermediate filaments and microfilaments, respectively. Actin microfilaments anchor at adherens junctions, which occur in many sizes, shapes, and positions. These junctions generally contain E- or N-Cadherin whose cytoplasmic region is associated with cytoplasmic proteins such as  $\alpha$ - and  $\beta$ -catenin, vinculin,  $\alpha$ -actinin, and radixin. Intermediate filaments (IFs) are anchored at desmosomes which contain desmosome-specific cadherin family members, known as desmocollin (Dsc) and desmoglein. These proteins associate with cytoplasmic proteins such as desmoplakin and plakoglobin ( $\gamma$ -Catenin). Plakoglobin is the only junctional protein found at both desmosomes and adherens junctions and, therefore, plays a crucial role in cell adhesion.



**Western blot analysis of Desmoglein on a HeLa cell lysate (Human cervical epitheloid carcinoma; ATCC CCL-2.2). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the Mouse Anti-Desmoglein antibody.**

## Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

## Application Notes

## Application

Western blot	Routinely Tested
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## Recommended Assay Procedure:

**Western blot:** Please refer to [http://www.bdbiosciences.com/pharmingen/protocols/Western\\_Blotting.shtml](http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml)

## Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to [www.bdbiosciences.com/pharmlingen/protocols](http://www.bdbiosciences.com/pharmlingen/protocols) for technical protocols.

## References

Mathur M, Goodwin L, Cowin P. Interactions of the cytoplasmic domain of the desmosomal cadherin Dsg1 with plakoglobin. *J Biol Chem.* 1994; 269(19):14075-14080. (Biology)

Peltonen S, Hentula M, Hägg P. A novel component of epidermal cell-matrix and cell-cell contacts: transmembrane protein type XIII collagen. *J Invest Dermatol.* 1999; 113(4):635-642. (Biology: Immunohistochemistry)

Stewart DB, Barth AI, Nelson WJ. Differential regulation of endogenous cadherin expression in Madin-Darby canine kidney cells by cell-cell adhesion and activation of beta -catenin signaling. *J Biol Chem.* 2000; 275(27):20707-20716. (Biology: Western blot)

Wheeler GN, Parker AE, Thomas CL. Desmosomal glycoprotein DGI, a component of intercellular desmosome junctions, is related to the cadherin family of cell adhesion molecules. *Proc Natl Acad Sci U S A.* 1991; 88(11):4796-4800. (Biology)

Wine RN, Chapin RE. Adhesion and signaling proteins spatiotemporally associated with spermiation in the rat. *J Androl.* 1999; 20(2):198-213. (Biology: Immunohistochemistry, Western blot)