

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Desmoglein-2, Human, clone 6D8		
Catalog number	HM2114-20UG		
Lot number	-	Expiry date	-
Volume	200 µl	Amount	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Concentration	100 µg/ml
Host Species	Mouse IgG1	Conjugate	None
Endotoxin	N.A.	Purification	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	5		2,3,7				1,3-7	1-3,5-7
Yes	•		•				•	•
No								
N.D.		•		•	•	•		

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10.

- W: A reduced sample treatment (Laemmli buffer) and SDS-PAGE was used. The band size is ~165 kDa (Ref.5).
- IHC-F: Tissues frozen in OCT were fixed in 100% methanol for 15 min at 20_C, permeabilized in 50:50 methanol/acetone for 2 min at 20_C, and then treated with 1% Triton X-100 in PBS for 5 min at room temperature. Non-specific sites were blocked for 30min in blocking buffer (PBS/0.1% Triton X-100/1% BSA); (Ref.5).
- Positive control: A431 cells.

General Information

Description	The monoclonal antibody 6D8 recognizes the extracellular domain of human desmoglein-2. Desmogleins and desmocollins are members of the cadherin family of transmembrane proteins that together make up the core of the desmosome, a structure that provides transmembrane strength to tissues undergoing mechanical stress. The desmosomal cadherins, desmogleins and desmocollins, mediate calcium-dependent cell-cell adhesion by forming homotypic and heterotypic interactions with one another. The multiprotein desmosomal complex also includes the cytoplasmic desmosomal plaque proteins plakoglobin, phakophilins, and desmoplakin, which bind to the intracellular domain of the desmogleins and function to anchor the keratin intermediate filament network to site of cell-cell contacts. In human, four desmogleins have been identified (Dsg1–4). Desmogleins are synthesized with a signal peptide that directs them to the endoplasmic reticulum and a proregion that is removed during protein processing. The mature protein includes four highly conserved extracellular domains (EC 1–4) and a fifth membrane proximal, more variable EC domain that is referred to as the “extracellular anchor domain. Desmoglein-2 is expressed on various cells including simple epithelia and myocardium, tumors and many cell cultures. Desmogleins play critical roles in cell adhesion and skin blistering diseases, as they are the target antigens of autoimmune antibodies and bacterial toxins. Desmosomal dysfunction has been implicated in a number of diseases, including striate palmoplantar keratoderma, skin fragility, and ectodermal dysplasia, and most recently arrhythmic right ventricular cardiomyopathy (ARVC).
Immunogen	Extracellular EC4 domain
Aliases	Dsg2, Cadherin family member 5, HDGC
Cross reactivity	Desmoglein-1: No; Desmoglein-3: No.
References	<ol style="list-style-type: none"> 1. Wahl, J et al; Plakoglobin domains that define its association with the desmosomal cadherins and the classical cadherins: identification of unique and shared domains. J Cell Sci 1996, 109: 1143 2. Lewis, J et al; Cross-talk between adherens junctions and desmosomes depends on plakoglobin. J Cell Biol 1997, 136: 919 3. Wahl, J et al; Generation of monoclonal antibodies specific for desmoglein family members. Hybrid Hybridomics 2002, 21: 37 4. Ota, T et al; No involvement of IgG autoantibodies against extracellular domains of desmoglein 2 in paraneoplastic pemphigus or inflammatory bowel diseases. J Dermatol Sci 2003, 32: 137

5. Mahoney, M et al; Delineation of diversified desmoglein distribution in stratified squamous epithelia: implications in diseases. *Exp Dermatol* 2006, *15*: 101
6. Nava, P et al; Desmoglein-2: a novel regulator of apoptosis in the intestinal epithelium. *MBC* 2007, *18*: 4565
7. Keim, S et al; Generation and characterization of monoclonal antibodies against the proregion of human desmoglein-2. *Hybridoma* 2008, *27*: 249.

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
18/11/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.