Qty: 100 µg/200 µl

Mouse anti-Desmoglein-2

Catalog No. 32-6100

Lot No.

Mouse anti-Desmoglein-2

FORM
This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A affinity chromatography.

CLONE: 6D8 **ISOTYPE:** Mouse IgG_1

IMMUNOGEN
Human desmoglein-2.

SPECIFICITY
This antibody reacts with the ~165 kDa desmoglein-2 protein. This antibody does not cross react with desmoglein-1 or desmoglein-3 protein.

REACTIVITY
This antibody is confirmed reactive with human. Reactivity with other species has not been tested. Positive control: A431 cells.

Sample	Immuno-precipitation (native)	Function Inhibition	Western Blotting	Immuno-fluorescence
Human	+++	0	+++	++
Immunogen				

(Excellent +++, Good ++, Poor +, No reactivity 0, Not applicable NA)

USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunoprecipitation: 5-10 µg
Western Blotting: 1-3 µg/ml
Immunostaining: 20-50 µg/ml

STORAGE
Store at 2-8°C for up to one month. Store at –20°C for long term storage. Avoid repeated freezing and thawing.

(cont'd)

BACKGROUND

Desmosomes are intercellular adhering junctions that represent cell surface attachment sites for intermediate filament. The desmosome is subdivided into two regions. The plaque region lies adjacent to the plasma, and is believed to contain molecules that attach the intermediate filament cytoskeleton to the desmosome. The core region is composed of transmembrane glycoproteins that are thought to mediate cell-cell adhesion.

Desmogleins and desmocollins are the main desmosomal transmembrane proteins. These desmosomal glycoproteins belong to the members of the cadherin family of adhesion molecules. Three different isoforms of both desmogleins and desmocollins have been identified, named as desmoglein1-3 and desmocollin1-3[(1)]. Desmosomal cadherins showed differentiation-specific expression in the human epidermis, although the functional significance of this differential expression is not fully understood. Desmoglein-1 is synthesized exclusively in the suprabasal layers[(2)]. The expression of desmoglein-2 varies in the basal layers, depending on the certain types of epidermis[(2)]. And desmoglein-3 is expressed in both the basal and the lower suprabasal compartments[(2)].

Domain specific desmosomal and adherens junction-associated antibodies have been widely used in recent studies. In one study, domain specific antibodies were used to determine the cellular localization of the skin of patients with Hailey-Hailey disease and Darier's disease[(3)]. Desmosomal cadherin antibodies are also useful for targeting specific disease[(4)] and in the study of interaction between cell adhesion proteins[(5)].

REFERENCES

1. Buxton, RS., et. al. Nomenclature of the desmosomal cadherins. *J Cell Biol*. 121:481-483 (1993).
2. Kurzen, H., et. al. Compositionally different desmosomes in the various compartments of the human hair follicle. *Differentiation* 63(5):295-304 (1998).
3. Hakuno, M., et. al. Dissociation of intra- and extracellular domains of desmosomal cadherins and E-cadherin in Hailey-Hailey disease and Darier's disease. *British Journal of Dermatology* 142:702-711 (2000).
4. Proby, C.M., et. al. Development of chimeric molecules for recognition and targeting of antigen-specific B cells in pemphigus vulgaris. *British Journal of Dermatology* 142:321-330 (2000).
5. Wahl, J.K. III, et. al. The amino- and carboxyl-terminal tails of (beta)-catenin reduce its affinity for desmoglein 2. *J Cell Sci.* 113 :1737-1745 (2000).

RELATED PRODUCTS

Product	*Clone*	*Cat. No.*
Mouse anti-Desmoglein-1	27B2	32-6000
Mouse anti-Desmoglein-3	5G11	32-6300
Mouse anti-Desmocollin-2/3	7G6	32-6200
Mouse anti-Plakophilin-1	10B2	32-5700
Mouse anti-α-Catenin	αCAT-7A4	13-9700
Mouse anti-β-Catenin	CAT-5H10	13-8400
Mouse anti-γ-Catenin	PG-11E4	13-8500

Product	*Conjugate*	*Cat. No.*
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6500
FITC	81-6511
TRITC	81-6514
Cy™3	81-6515
Cy™5	81-6516
HRP	81-6520
AP	81-6522
Biotin	81-6540

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