

# Recombinant Human Desmoglein 2

**Cat. No.** DSG2-1601H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>              | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>         | Desmoglein 2, also known as DSG2, is a human gene. Desmosomes are cell-cell junctions between epithelial, myocardial, and certain other cell types. Desmoglein 2 is a calcium-binding transmembrane glycoprotein component of desmosomes in vertebrate epithelial cells. It provides cellular adhesion and forces transduction by cell-to-cell anchorage. It also plays a role in embryonic stem cell proliferation. |
| <b>Molecular Weight</b>    | The predicted molecular weight of Recombinant Human Desmoglein-2 is Mr 89 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 115 kDa.                                                                                                                                                                                                                                              |
| <b>Amino Acid Sequence</b> | Human Desmoglein2 (Ala49 Gly608) - IEGRMD - Human IgG1 (Pro100 Lys330).                                                                                                                                                                                                                                                                                                                                              |
| <b>State Of Matter</b>     | Lyophilized.                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>              | >95% by SDS Page and analyzed by silver stain.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Formulation</b>         | This recombinant protein was 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2-7.3 with no calcium, magnesium, or preservatives.                                                                                                                                                                                                                                    |

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|                              |                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>             | <1.0 EU/g as determined by the LAL method.                                                                                                                                                                                                                                                                                                      |
| <b>Biological Activity</b>   | The biological activity of Human DSG2 was determined by the ability of the immobilized protein to support the adhesion of BUD8 human skin fibroblast cells. When 3 x 10 <sup>4</sup> cells are added to recombinant human Desmoglein 2 coated plates (10 µg/ml, 100 µl/well), approximately 50%-80% will adhere after 1 hour at 37°C.           |
| <b>Storage And Stability</b> | This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions. |

## GENE INFORMATION

|                       |                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>      | DSG2 desmoglein 2 [ Homo sapiens ]                                                                     |
| <b>Synonyms</b>       | DSG2; desmoglein 2; HDGC; CDHF5; ARVC10; ARVD10; CMD1BB; MGC117034; MGC117036; MGC117037; Desmoglein-2 |
| <b>Gene ID</b>        | 1829                                                                                                   |
| <b>mRNA Refseq</b>    | NM_001943                                                                                              |
| <b>Protein Refseq</b> | NP_001934                                                                                              |
| <b>MIM</b>            | 125671                                                                                                 |
| <b>UniProt ID</b>     | Q14126                                                                                                 |
| <b>Chromosome</b>     | 18q12.1                                                                                                |

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|          |                                                        |
|----------|--------------------------------------------------------|
| Location |                                                        |
| Pathway  | Arrhythmogenic right ventricular cardiomyopathy (ARVC) |
| Function | calcium ion binding; protein binding                   |

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