

Recombinant Human DSG3 Protein, C-His-tagged

Cat. No. DSG3-12H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human DSG3 Protein, fused to His-tag at C-terminus, was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	Glu24-Lys499
Description	Desmoglein-3, also known as pemphigus vulgaris antigen (PVA), is a 130 kDa transmembrane glycoprotein that belongs to the cadherin family of calcium dependent adhesion molecules. Human Desmoglein-3 is synthesized with a 26 amino acid (aa) propeptide. The mature protein consists of a 566 aa extracellular domain (ECD) that contains four cadherin-like domains, a 25 aa transmembrane segment, and a 359 aa cytoplasmic domain. Within the ECD, human Desmoglein-3 shares 78% aa sequence identity with mouse and rat Desmoglein-3. It shares 44%, 47%, and 56% aa sequence identity with Desmoglein-1, -2, and -4 respectively. Desmoglein-3 is one of the principal components of desmosomes which form adhesive contacts between epithelial cells. It is expressed in the basal and suprabasal layers of stratified epithelia in many tissues. During apoptosis, Desmoglein-3 is cleaved by caspases, plus MMP-2, and MMP-9 at sites within the cytoplasmic and extracellular regions, resulting in shortened transmembrane forms and a soluble 75 kDa ECD fragment. The downregulation of Desmoglein-3 in oral squamous cell carcinoma correlates with metastatic potential. Desmoglein-3 is the target of autoantibodies in pemphigus

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	vulgaris, a blistering skin disorder with compromised inter-keratinocyte adhesion. Binding of these antibodies triggers Desmoglein-3 internalization and degradation by keratinocytes.
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by the ability of immobilized Recombinant Human Desmoglein-3 His-tag to support the adhesion of Caki-2 human clear cell carcinoma epithelial cells. The ED50 for this effect is 0.750-6.00 µg/mL.
Molecular Mass	Predicted Molecular Mass: 56 kDa & 53 kDa SDS-PAGE: 57-67 kDa, reducing conditions
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Reconstitution	Reconstitute at 250 µg/mL in PBS.

GENE INFORMATION

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Gene Name	DSG3 desmoglein 3 [Homo sapiens (human)]
Official Symbol	DSG3
Synonyms	DSG3; Cadherin family member 6; CDHF6; CDHF6130-kD pemphigus vulgaris antigen; desmoglein 3 (pemphigus vulgaris antigen); desmoglein 3; Desmoglein3; Desmoglein-3; DKFZp686P23184,130 kDa pemphigus vulgaris antigen; pemphigus vulgaris antigen; PVA; ABOLM
Gene ID	1830
mRNA Refseq	NM_001944.3
Protein Refseq	NP_001935.2
MIM	169615
UniProt ID	P32926

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