

DSP Protein, Human (His-SUMO)

Cat. No.:	HY-P72176
Synonyms:	250/210 kDa paraneoplastic pemphigus antigen; DCWHKTA; Desmoplakin DPI DP1I; ; Desmoplakin; Desmoplakin I ; Desmoplakin II; DESP_HUMAN; DP; DP I; DP II; DPI; DP1I; DSP; KP2S2; PK2S 2; PK2S2
Species:	Human
Source:	E. coli
Accession:	P15924 (C78-D300)
Gene ID:	1832
Molecular Weight:	Approximately 42.1 kDa

PROPERTIES

AA Sequence	<pre> C S D C L M R A E L I V Q P E L K Y G D G I Q L T R S R E L D E C F A Q A N D Q M E I L D S L I R E M R Q M G Q P C D A Y Q K R L L Q L Q E Q M R A L Y K A I S V P R V R R A S S K G G G G Y T C Q S G S G W D E F T K H V T S E C L G W M R Q Q R A E M D M V A W G V D L A S V E Q H I N S H R G I H N S I G D Y R W Q L D K I K A D L R E K S A I Y Q L E E E Y E N L L K A S F E R M D H L R Q L Q N I I Q A T S R E I M W I N D C E E E E L L Y D W S D </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>DSP Protein takes center stage as a major high molecular weight component of desmosomes, crucial for maintaining structural integrity in various tissues. In cardiomyocytes, DSP plays a regulatory role in profibrotic gene expression through the activation of the MAPK14/p38 MAPK signaling cascade and an increase in TGFB1 protein abundance, as evidenced by similarity-based observations. Existing as a homodimer, DSP engages in dynamic interactions with key desmosomal components, such as COL17A1, DSC2, PKP2, and PKP1, showcasing its integral role in the complex architecture of desmosomal junctions. Furthermore, DSP demonstrates a weak interaction with TMEM65, highlighting its potential involvement in diverse cellular processes beyond desmosome assembly. The multifaceted functions of DSP underscore its</p>
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significance in cellular structure and signaling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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