Proteins

Product Data Sheet

Collectin-11/CL-K1 Protein, Human (HEK293, His)

Cat. No.: HY-P70100

Synonyms: rHuCollectin-11/CL-K1, His; Collectin-11; Collectin Kidney Protein 1; CL-K1; COLEC11

Species: HEK293 Source:

Q9BWP8 (Q26-M271) Accession:

Gene ID: 78989 Molecular Weight: 30-35 kDa

PROPERTIES

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QPAGDDACSV QILVPGLKGD AGEKGDKGAP GRPGRVGPTG EKGDMGDKGQ KGSVGRHGKI GPIGSKGEKG DSGDIGPPGP NGEPGLPCEC SQLRKAIGEM DNQVSQLTSE LKFIKNAVAG VRETESKIYL LVKEEKRYAD TLSMPKDEAA $A\ Q\ L\ S\ C\ Q\ G\ R\ G\ G$ NDLEKEGAFV NGLMAAYLAQ AGLARVFIGI YSDHSPMRTF NKWRSGEPNN AYDEEDCVEM VASGGWNDVA CHTTMYFMCE

FDKENM

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

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

The Collectin-11/CL-K1 protein serves as a lectin crucial in innate immunity, apoptosis, and embryogenesis. This calciumdependent lectin recognizes self and non-self glycoproteins presenting high mannose oligosaccharides with at least one terminal alpha-1,2-linked mannose epitope, primarily focusing on the terminal disaccharide of the glycan. Additionally, it identifies a subset of fucosylated glycans and lipopolysaccharides. In innate immunity, Collectin-11/CL-K1 binds non-self sugars on microorganisms, activating the complement through the recruitment of MAPS1. In apoptosis, the protein binds DNA on the surface of apoptotic cells in a calcium-independent manner, triggering complement activation in response to this binding. Furthermore, Collectin-11/CL-K1 contributes to development, potentially serving as a guidance cue during the migration of neural crest cells and other cell types in embryogenesis. The protein forms homotrimers through disulfide linkages and interacts with MASP1, likely initiating the lectin pathway of complement activation.

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

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