Claudin-18/CLDN18.2 Protein, Human (His)

Cat. No.:	HY-P70701
Synonyms:	Claudin-18; CLDN18
Species:	Human
Source:	E. coli
Accession:	P56856-2 (D28-L76)
Gene ID:	51208
Molecular Weight:	Approximately 18.0 kDa

PROPERTIES

AA Sequence	D Q W S T Q D L Y N N P V T A V F N Y Q G L W R S C V R E S S G F T E C R G Y F T L L G L P A M L
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 25 mM Tris-HCl, 25 mM NaCl, 0.1% Triton X-100, 10% glycerol, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	CLDN18 play a crucial role in alveolar fluid homeostasis by regulating the composition of tight junctions in alveolar epithelial cells, impacting ion transport, and solute permeability, potentially through the modulation of actin cytoskeleton organization and beta-2-adrenergic signaling. Essential for lung alveolarization and the maintenance of the paracellular alveolar epithelial barrier, CLDN18-VLPs contribute to epithelial progenitor cell proliferation and organ size regulation by controlling the subcellular localization of YAP1 and restricting its target gene transcription. Additionally, CLDN18-VLPs act as a negative regulator of RANKL-induced osteoclast differentiation, possibly by influencing the subcellular distribution of TJP2/ZO-2 and participating in bone resorption in response to calcium deficiency. They mediate the osteoprotective effects of estrogen independently of RANKL signaling pathways. Furthermore, CLDN18-VLPs are implicated in maintaining the alveolar microenvironment homeostasis by regulating pH and subsequent T-cell activation, indirectly contributing to the limitation of C. neoformans infection.

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

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