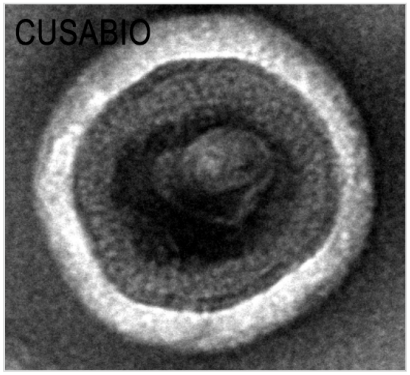
Recombinant Human Claudin-6 (CLDN6)-VLPs (Active)

Product Code	CSB-MP005508HU(A4)
Abbreviation	Recombinant Human CLDN6 protein-VLPs (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P56747
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm sterile filtered PBS, 6% Trehalose, pH 7.4
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Biological Activity	①Measured by its binding ability in a functional ELISA. Immobilized Human CLDN6 at 2 μg/mL can bind Anti-CLDN6/9 recombinant antibody(CSB-RA005508MA1HU). The EC50 is 1.334-1.504 ng/mL.The VLPs (CSB-MP3838) is negative control. ②Measured by its binding ability in a functional ELISA. Immobilized Human CLDN6 at 2 μg/mL can bind Anti-CLDN6 recombinant antibody(CSB-RA005508MA2HU). The EC50 is 2.920-3.812 ng/mL.The VLPs (CSB-MP3838) is negative control. ③Measured by its binding ability in a functional ELISA. Immobilized Human CLDN6 at 2 μg/mL can bind Anti-CLDN6/9 recombinant antibody(CSB-RA005508MA3HU). The EC50 is 3.482-4.097 ng/mL.The VLPs (CSB-MP3838) is negative control. ④Measured by its binding ability in a functional ELISA. Immobilized Human CLDN6 at 2 μg/mL can bind Anti-CLDN6 recombinant antibody(CSB-RA005508MA4HU). The EC50 is 2.866-3.739 ng/mL.The VLPs (CSB-MP3838) is negative control.
Purity	Greater than 95% as determined by SEC-HPLC.
Sequence	MASAGMQILGVVLTLLGWVNGLVSCALPMWKVTAFIGNSIVVAQVVWEGLWMSCVVQSTGQMQCKVYDSLLALPQDLQAARALCVIALLVALFGLLVYLAGAKCTTCVEEKDSKARLVLTSGIVFVISGVLTLIPVCWTAHAIIRDFYNPLVAEAQKRELGASLYLGWAASGLLLLGGGLLCCTCPSGGSQGPSHYMARYSTSAPAISRGPSEYPTKNYV
Source	Mammalian cell
Target Names	CLDN6
Expression Region	1-220aa
Notes	"The VLPs are expressed from human 293 cells (HEK293).Mix the sample

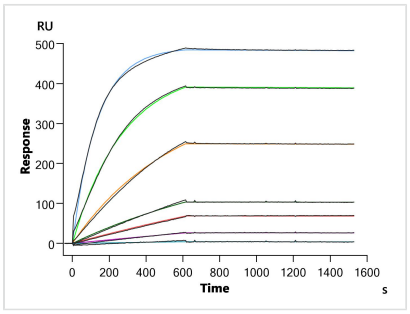
gently by repeatedly pipetting it up and down. Do not vortex.Repeated freezing and thawing is not recommended.Store the protein at -20?/-80? upon receiving it, and ensure to avoid repeated freezing and thawing, otherwise, it will affect the protein activity. The immunization strategy should be optimized (antigen dose, regimen and adjuvant)."

Tag Info	C-terminal 10xHis-tagged (This tag can be tested only under denaturing conditions)
Mol. Weight	24.8 kDa
Protein Length	Full Length

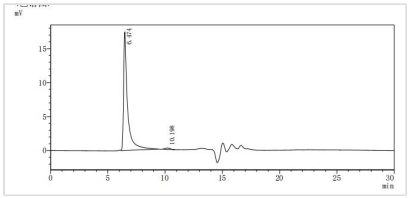
Image



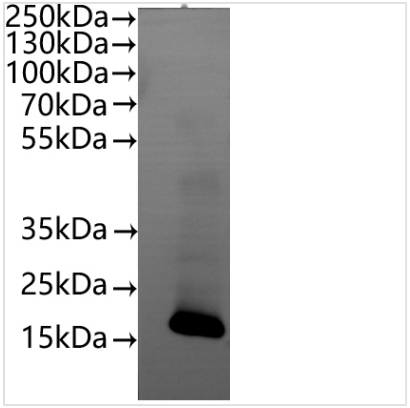
The presence of VLP-like structures was confirmed by TEM



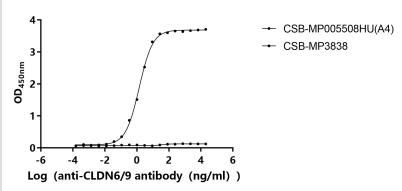
Human CLDN6 Monoclonal Antibody (CSB-RA005508MA1HU) captured on Protein A Chip can bind Human CLDN6 Full Length VLP Protein with an affinity constant of 6.58 nM as detected by MetaSPR Assay (WeSPR™ 200).



The purity of VLPs was greater than 95% as determined by SEC-HPLC



CSB-MP005508HU(A4) is detected by Mouse anti-6*His monoclonal antibody.



Activity
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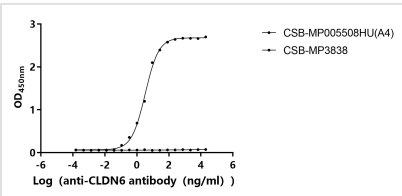

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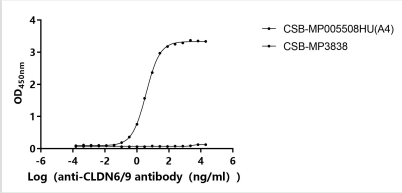

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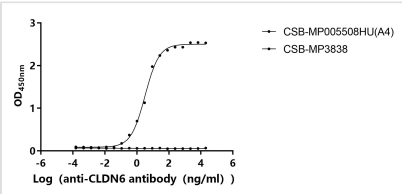

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Description

This Human Claudin-6 (CLDN6) recombinant protein was produced in Mammalian cell, where the gene sequence encoding Human CLDN6 (1-220aa) was expressed with the C-terminal 10xHis tag. The activity was validated by its binding ability in a functional ELISA. This Human CLDN6 recombinant protein was developed through the Virus-Like Particles (VLPs) Platform. It is a four-pass transmembrane protein.

CLDNs are a class of TJ (Tight junctions) transmembrane proteins. From the perspective of spatial structure, most CLDNs contain four transmembrane regions and two extracellular loops, and an intracellular loop with amino and carboxyl termini located in the cytoplasm. Crystal structures of some CLDNs reveal a unique protein fold of the left-handed helical bundle and the four transmembrane helices of the extracellular caudal domain.
CLDN6 can activate cell adhesion signaling and modulate the activity of nuclear receptors. CLDN6 is expressed in a variety of embryonic epithelia, induces the formation and polarity of epithelial cell junctions, and is involved in the differentiation of stem cells into the epithelium. Collectively, CLDN6 is an important part of the CLDN family and plays an important role in maintaining the function of TJs. CLDN6 is specifically expressed in various cancers such as

	ovarian cancer, testicular cancer, hepatocellular carcinoma and lung adenocarcinoma, differentially expressed on cancer cells, and almost undetectable in adult normal tissues, making it a potential target point.
Endotoxin	Less than 1.0 EU/ug as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20?/-80?. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.