

DESCRIPTION

Target:	Claudin-5
Target aliases:	TMVCF, Claudin 5, CLDN5
Fc isotype:	IgG2a
Membrane proteome specificity:	Monospecific for 6,000 membrane proteins tested
Species reactivity:	Human (Others untested)
Extracellular epitope:	Yes
Fc modifications:	C-terminal Avitag ¹ , disabled Fc- γ receptor binding ²
Source:	Recombinant CHO expression; purified by Protein A chromatography
Formulation:	Endotoxin Free PBS pH 7.4, sterile-filtered
Concentration:	1 mg/ml

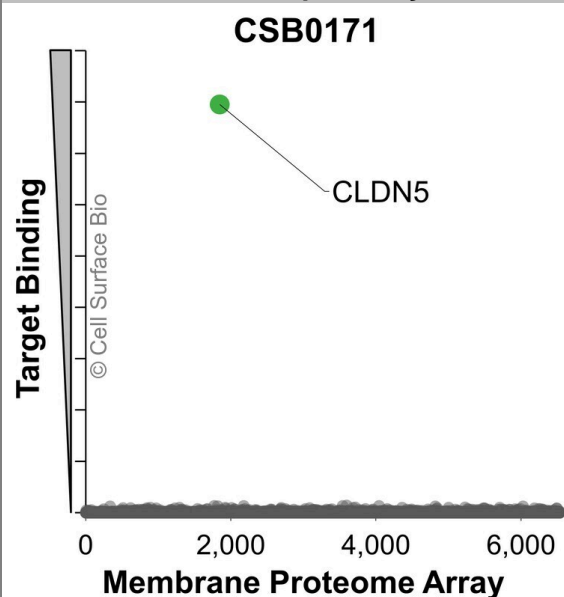
1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc- γ receptor binding site to minimize non-specific antibody binding.

Claudin-5 TARGET INFORMATION

Claudin-5 (CLDN5) is a member of the claudin family of integral membrane proteins, which are critical components of tight junction strands in epithelial and endothelial cells. CLDN5 is predominantly expressed in endothelial cells, especially within the blood-brain barrier, where it contributes to regulating paracellular permeability and maintaining vascular integrity. The protein spans the membrane four times and participates in cell-cell adhesion by forming tight junction complexes with other claudins. Its function is essential for the selective restriction of solutes across endothelial barriers. (NCBI Gene: 7122, UniProtKB/Swiss-Prot: 000501) Other names: TMVCF, Claudin 5, CLDN5

SHIPPING AND STORAGE

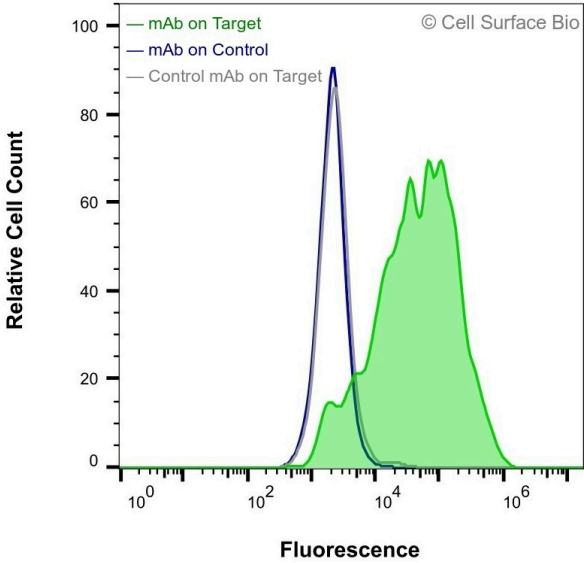
Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA
Membrane Proteome Specificity


The specificity of Claudin-5 Monoclonal Antibody (CSB0171) was tested on the Membrane Proteome Array™ and shown to be specific for Claudin-5.

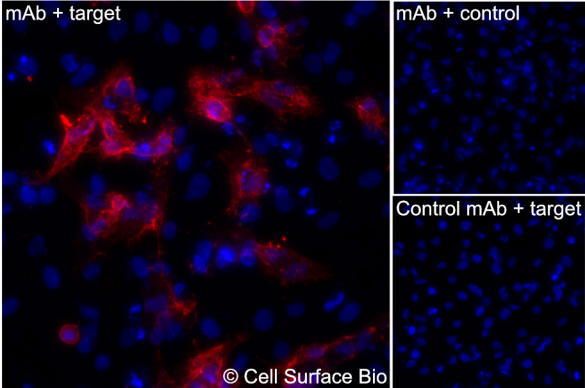
The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed human cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies and other protein ligands.

Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



HEK-293F cells transiently transfected with Claudin-5 were stained with Claudin-5 Monoclonal Antibody (CSB0171) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-293F cells transiently transfected with an empty control vector were also stained with Claudin-5 Monoclonal Antibody (CSB0171) (blue).

Applications	Conditions	Recommended concentration
Immunofluorescence, Extracellular	Fixed 4% paraformaldehyde	1 µg/ml



(Left) JS-1 cells transiently transfected Claudin-5 were stained with Claudin-5 Monoclonal Antibody (CSB0171) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with Claudin-5 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with Claudin-5 and stained with control MAb.

Applications

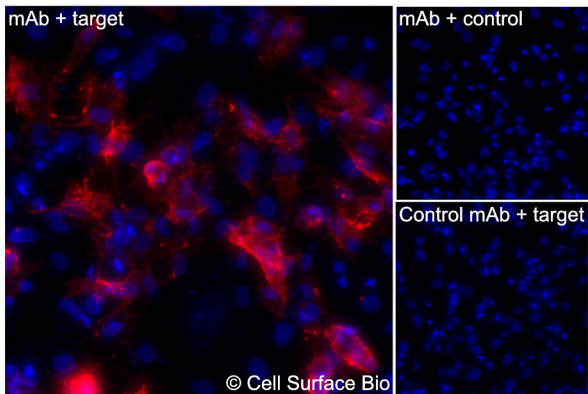
Immunofluorescence, Intracellular

Conditions

Fixed 4 % paraformaldehyde,
Permeabilized 0.1% Triton X-100

Recommended concentration

1 µg/ml



(Left) JS-1 cells transiently transfected Claudin-5 were permeabilized and stained with Claudin-5 Monoclonal Antibody (CSB0171) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with Claudin-5 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with {{target}} and stained with control MAb.