

🕜 Tel: +1-301-363-4651 🛛 🖾 Email: cusabio@cusabio.com 🤅 Website: www.cusabio.com 🌘

CLDN5 Recombinant Monoclonal Antibody

Product Code	CSB-RA037143A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O00501
Immunogen	A synthesized peptide derived from Human CLDN5
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Signal transduction
Gene Names	CLDN5
Clone No.	13G6

Image



IHC image of CSB-RA037143A0HU diluted at 1:100 and staining in paraffin-embedded human prostate tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.77% DAB.

Description

The rabbit was immunized with a synthesized peptide from the human CLDN5 protein. Subsequently, B cells were isolated from the immunized rabbit, and RNA was extracted from these B cells. The extracted RNA was then reverse-transcribed into cDNA, serving as a template for extending CLDN5 antibody genes using degenerate primers. The resulting CLDN5 antibody genes were incorporated into a plasmid vector, followed by transfection into host cells for expression. The resulting CLDN5 recombinant monoclonal antibody was purified from the cell culture supernatant using affinity chromatography. The CLDN5

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antibody was assessed for its utility in ELISA and IHC applications, with the ability to recognize human CLDN5 protein.

The CLDN5 protein, as a component of tight junctions, plays a central role in regulating the permeability of endothelial barriers, particularly in the formation and maintenance of the blood-brain barrier. Its functions are crucial for preserving tissue homeostasis and protecting the brain from potential threats.