FUJIFILM
Value from Innovation

Wako

For blood-brain barrier research

Anti Claudin-5, Monoclonal Antibody(R9/M48)

Claudin-5 is a tetra-transmembrane protein with approximately 23kDa, belongs to a member of Claudin family. It functions as a key component regulating tight junction of blood-brain barrier[1]. These products are monoclonal antibodies which specifically recognize Claudin-5, and have neutralizing activity which reduces barrier function in blood-brain barrier cell model[1]. They have no cross-reaction to Claudin-1-4,6,7[1].

1) Hashimoto, Y., *et al.*: *J. Pharmacol. Exp. Ther.*, 363(2), 275(2017).

Antibody information

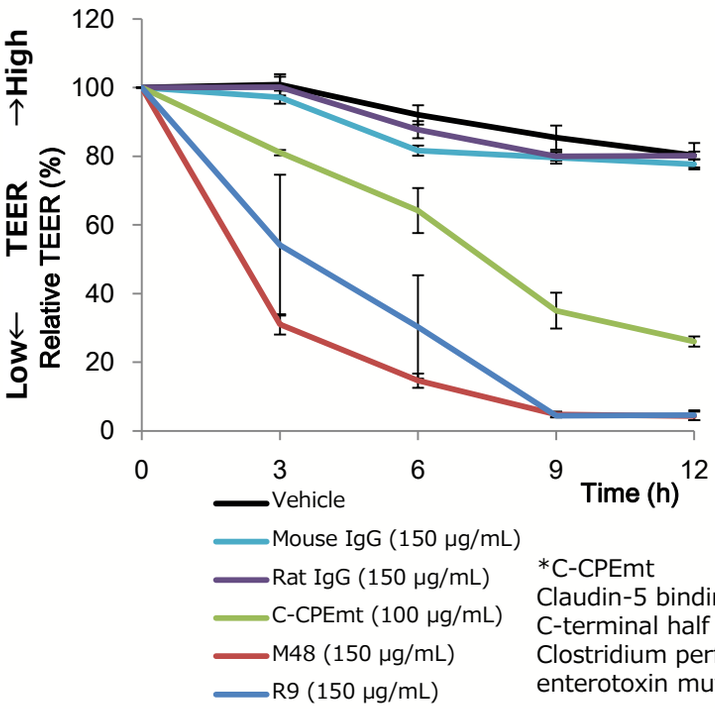
	Anti Claudin-5, Monoclonal Antibody (R9)	Anti Claudin-5, Monoclonal Antibody (M48)
Code No.	014-28101	011-28091
Clone No.	R9	M48
Antigen	Vector expressing human claudin-5 full length accession#AAH19290	Vector expressing human claudin-5 full length accession#AAH19290
Buffer	PBS	PBS
Subclass	Rat IgG2b・κ	Mouse IgG3・κ
Cross-reactivity	Human, monkey	Human, monkey
Specificity	Claudin-5 No cross-reaction to Claudin-1-4,6,7[1]	Claudin-5 No cross-reaction to Claudin-1-4,6,7[1]
Concentration	Indicated to the label First lot : 1.1mg/mL	Indicated to the label First lot:1.2mg/mL
Application	Flow cytometry 0.5-5μg/mL Neutralizing assay(in vitro) 90-150μg/mL	Flow cytometry 0.5-5μg/mL Neutralizing assay(in vitro) 90-150μg/mL

Product Name	Wako Cat. No	Pkg. Size	Grade	Storage Condition
Anti Claudin-5, Rat Monoclonal Antibody (R9)	014-28101	500μL	For Immunochemistry	Keep at -80℃
Anti Claudin-5, Monoclonal Antibody (M48)	011-28091	500μL	For Immunochemistry	Keep at -80℃

Application data (Neutralizing assay *in vitro* BBB cell model)

The barrier activity was evaluated by adding these antibodies (R9 and M48) were added to the blood-brain barrier cynomolgus cell model (BBB kit, PharmaCo-cell).

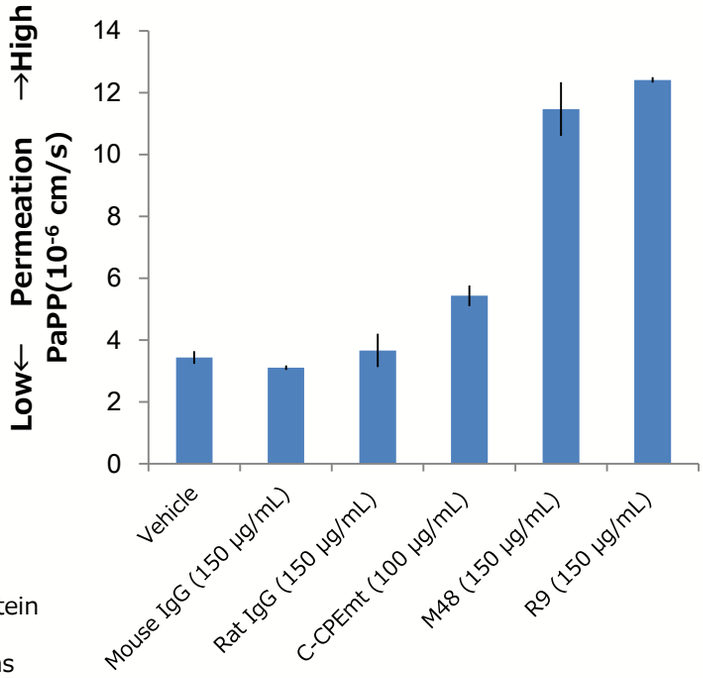
(1)Trans-epithelial/endothelial electrical resistance (TEER)



*C-CPEmt
Claudin-5 binding protein C-terminal half of Clostridium perfringens enterotoxin mutant

These antibodies(R9 and M48) reduced TEER. The effects were higher than C-CPEmt.

(2) Substance permanent



These antibodies(R9 and M48) increased permanent of fluorescein isothiocyanate–labeled dextran(4kDa).The effects were higher than C-CPEmt.

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