

Ibidi flow system immune cell adhesion assay

Commonly used acronym: Adhesion assay

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Organisation

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Country Belgium

Geographical Area Flemish Region

SCOPE OF THE METHOD

The Method relates to	Animal health, Human health
The Method is situated in	Basic Research, Translational - Applied Research
Type of method	In vitro - Ex vivo

DESCRIPTION

Method keywords

adhesion

endothelial cells

migration

shear stress

blood brain barrier

blood flow

Scientific area keywords

immune cell migration

human white blood cells

blood brain barrier

multiple sclerosis

cell adhesion

T lymphocyte

blood vessel

Method description

Using an *in vitro* flow system adhesion assay, immune cell adhesion to (blood-brain barrier) endothelial cells can be quantified under physiological blood flow conditions. Endothelial cells can be treated with inflammatory cytokines or therapeutic antibodies to mimic inflammatory diseases. Immune cell adhesion (including rolling, probing or crawling) can be visualized using live-cell imaging.

Lab equipment

Ibidi pump system and slides to mimic physiological blood flow

Method status

Published in peer reviewed journal

PROS, CONS & FUTURE POTENTIAL

Advantages

- Detailed analysis of migration phenotype (rolling, crawling, probing)
- Compare different genotypes or treatment conditions

Challenges

- Optimization required
- Time consuming data acquisition and analysis

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

Links

[Oncostatin M triggers brain inflammation by compromising blood-brain barrier in...](#)

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