



BLOOD BRAIN BARRIER SELECTIVE ANTIBODIES AND METHODS OF USE

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Inventors: Eric Shusta, Charles Stutz

The Invention

UW-Madison researchers have developed antibodies or antigen binding fragments thereof (i.e., single chain variable fragment (scFv)) that specifically bind to the blood brain barrier (BBB). The researchers used transcatheter perfusion to introduce a phage displayed scFv library into rat brain. After multiple rounds of screening, next generation sequencing (NGS) data were generated from phage DNA pools and subsequently analyzed using the Antibody Mining Toolbox. From this 12 scFvs were further analyzed, resulting in two particularly promising clones, scFv 4 and scFv 40, that demonstrated exceptional binding to the rat BBB. These scFvs could be conjugated to an active agent (e.g., therapeutic) for targeted delivery to the BBB.

Additional Information

For More Information About the Inventors

- [Eric Shusta](#)

Tech Fields

- [Drug Delivery : Other drug delivery technologies](#)

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854