

Rapid expression of SARS-CoV-2 monoclonal antibodies

We have developed a system that allows a rapid high-quality expression of SARS-CoV-2 monoclonal antibodies with targeted glycosylation profiles.

BACKGROUND

COVID-19 demands rapid responses. Thus, the **fast delivery** of substances like recombinant monoclonal antibodies (mAbs) potentially used in therapeutic applications is a critical aspect. An important quality parameter of mAbs is the presence of appropriate glycosylation profiles.

TECHNOLOGY

We have developed a eukaryotic (plant-based) expression system that enables the rapid and scalable production of recombinant mAbs. The applicants are experts in the generation of anti-viral mAbs with engineered glycosylation profiles exhibiting enhanced functional activities. The approach relies on the use of a transient expression system that allows purification of mAbs one week after delivery of the expression construct into plant leaves. Targeted N-glycosylation is achieved by the co-expression of semi-synthetic glycosylation modules in glyco-engineered production lines. Using this highly flexible platform a series of mAbs with defined Nglycan modifications can be generated on demand.

OFFER

We offer the rapid expression of high-quality SARS-CoV-2 mAbs with targeted glycosylation used in therapeutic programs. The system can be expanded to other viral glycoproteins for diagnostic or vaccination purposes.



EXPERTS

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AVAILABLE FOR

- Joint Research Project
- Contract Research
- COMET Funding call

DEVELOPMENT STATUS

TRL 2

KEYWORDS

- 。SARS-CoV-2
- 。COVID-19
- Recombinant SARS-CoV-2 antibodies
- Engineered glycosylation

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