

PRODUCT SPECIFICATION

Recombinant SARS-CoV-2 nanobodies.



Background

To maximally meet the challenge of the current corona virus pandemic we need as many tools as possible. Llamas, being out bread animals, are ideally suited for this purpose. Each immunized animal will generate a set of different Nanobodies that bind to different regions of for instance the corona Spike protein, currently one of the major therapeutic targets.

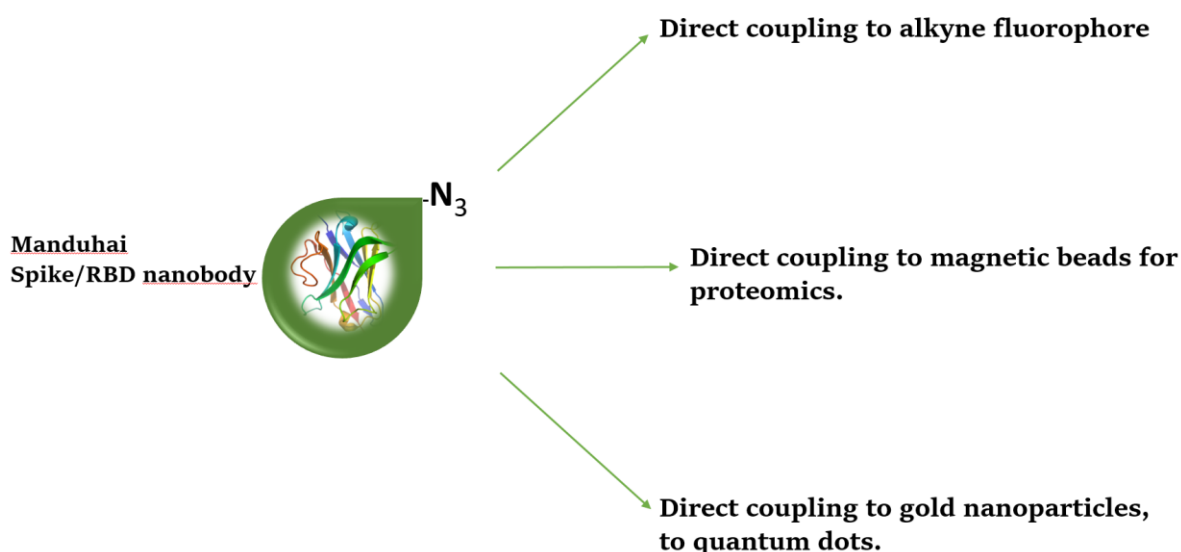
As such Nanobodies act as a molecular stethoscope, able of identifying 'sensitive epitopes' in the target protein. They can be further developed into research tools, diagnostics or therapeutics.

Gulliver Biomed has raised dozens of anti Spike protein- and receptor binding domain-specific Nanobodies that can assist in developing the most appropriate strategy to understand and challenge the corona virus pandemic at the molecular level.

Derivatized Spike and receptor binding domain nanobodies for click chemistry

The 'corona Nanobodies' can be derivatized in such a way that they carry a C-terminal *para*-azido-Phe residue, or at any other pre-chosen site in their primary structure. This residue is the same as natural Phe, except that it carries an azido group in its aromatic ring (-N₃). As a result, the nanobody is endowed with a singular reactive group, allowing down stream *click chemistry*. *Reproducible and site-specific labeling becomes standard in this way*. Through this modification the antigen binding properties of the nanobody remain unchanged because the carboxy-terminal region of a nanobody is generally not involved in antigen binding.

Such derivatized Nanobodies are ideal for oriented coupling as in for instance lateral flow immunological assays (LFIA), dramatically increasing sensitivity which is a prerequisite for development of a point-of care device, which can be used anywhere, yielding fast results.



Source and properties

These Nanobodies were raised by immunizing a llama with the spike protein or the receptor binding domain of Spike.

Availability: Manduhai corona virus Nanobodies comes with a COOH-terminal para-Azido-Phe residue. Available in 10 µg, 50 µg, 100µg quantities. For bulk amounts, please inquire.

Storage buffer: 20 mM Tris-HCl pH 8.0, 150 mM NaCl, 1mM DTT.

Stability: Store at -20°C upon arrival. For long term storage, aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Product citations:

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