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In vitro Cultivation and Microbiome Analysis

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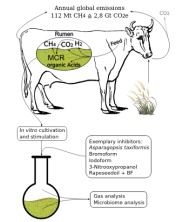
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We use this collection and it's working

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Abstract

This protocol describes the steps for building a setup for *in vitro* rumen cultivation. The full workflow of inoculation of ruminal cultures, measurement of produced gases, as well as the analysis of the microbiome is described. As result one should be able to build a fully functioning rumen cultivation setup to screen for compounds of interest or to conduct any other rumen cultivation related studies.

Materials

General equipment:

- 8-Channel pipette (Ergonomic High Performance multichannel pipette, VWR, Darmstadt, Germany)
- Autoclave (HG-133, HMC-Europe, Tüßling, Germany)
- Epoxy resin (Epoxyplast 100 P, DIPON.DE, Dortmund, Germany)
- Falcon tubes (Sarstedt, Nümbrecht, Germany)
- Glue gun (TC-GG 30, Einhell Germany, Landau/Isar, Germany)
- Luer-Lock adaptor female/female (neoLab, Heidelberg, Germany)
- Luer-Lock barbed adaptor 6mm on female and male (neoLab, Heidelberg, Germany)
- Luer-Lock valve male/female (Discofix®, B.Braun, Melsungen, Germany)
- Magnetic stirrer (ROTILABO®MH-15, Carl Roth, Karlsruhe, Germany)
- Pipettes 2 - 1000 µL (Eppendorf, Hamburg, Germany)
- Reaction tubes (Eppendorf, Hamburg, Germany)
- Serological pipettes (Sarstedt, Nümbrecht, Germany)
- Silicon tubes Ø 6mm (ESSKA, Hamburg, Germany)
- Vaseline (Heinrich Hagner GmbH, Freudenstadt, Germany)

Files

 SEARCH

Protocol



NAME

Setup design

VERSION 1

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Protocol

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In vitro cultivation

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Protocol

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Gas measurements

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Microbiome analysis

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Data evaluation

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