



Oct 14, 2019

Fatty acid extraction and derivatisation

[iGEM Dusseldorf¹](#)¹Heinrich-Heine Universität Düsseldorf

1

Works for me

dx.doi.org/10.17504/protocols.io.767hrhn

iGEM Dusseldorf ⚡

ABSTRACT

- C17 internal standard (stock = 1 mg/ml)
- MeOH//3N HCl
- hexane
- 1% NaCl
- clean glass tubes
- always work with glass pipettes or hamilton

Start

samples with 4 oD-units (e.g.: oD = 1, you will need 4 ml culture)

centrifuge in a clean glass tube for 10 min @ maximum speed

discard supernatant

Freeze @ -80 °C until further use

Extraction solution

200 µl C17 internal standard + 9,8 ml MeOH/3N HCl

caution! fill in a beaker and take the needed amount out of this beaker

always work with gloves

pipet C17 internal Std. with hamilton

Extraction

add 1 ml extraction solution to samples and blank

blank: fatty acid standard mix

heat 60 min @ 90°C

let cool down @ RT

add 1 ml hexane

add 1 ml 1% NaCl

vortex for 30 sec

spin down 5 min @ 2000 rpm

transfer hexane phase in to GC vial with screw cap

dilute samples (10 µl sample + 90 µl hexane)

wash hamilton between samples with hexane



This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited