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Project: iGEM_Munich2019 Shared Project

Authors: Theresa Keil

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RNA isolation out of lysed and unlysed VLP and exosomes

- starting samples V11 lysed cells
- V11 unlysed supernatant
- E26 lysed supernatant
- E26 lysed cells

two different RNA isolation techniques were tried out

1 RNeasy Mini Kit for samples

2 Trizol treatment for samples E26 lysed supernatant + lysed cells V11 unlysed supernatant

Protocol for trizol treatment see

concentration: V11 unlysed supernatant 400 ng/μl

E26 lysed supernatant 426 ng/μl

E26 lysed cells 1520 ng/μl

samples purified via RNeasy Mini Kit were discarded because no RNA could be measured at nanodrop

The samples from Trizol treatment showed RNA yields in the range of measurements above

the samples from trizol treatment and aliquot of the in vitro transcription divided in two samples

-> are used for reverse transcription via super script II first strand synthesis supermix

procedure according to protocol

sample: ivT, VLPs, Exosomes, all from other exosome group transfected with constructs

4 samples and 4 no RT as negative control

added 1 μg of RNA to each sample

qPCR

setup of master mix: 2x MM 650 μl

10 μM Primer fw: 6,5 μl

10 μM Primer rev: 19.5 μl

H2O: 494 μl

dilution serie in 10 steps from 5E0 copies/μl to 5E7 copies /μl of ivT cDNA

technical failure due to the well not being closed of by sealing foil