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ConA Cover Slide Preparation

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Protocol status: Working
We use this protocol and it's working

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Disclaimer

Abstract

Concanavalin A is used to attach yeast cell to surfaces. This protocol describes the preparation of cover slides for high resolution fluorescence microscopy.

Materials

Concanavalin A (ConA) from Canavalia ensiformis:
Sigma-Aldrich
Cat#: C2272-10MG
Lot#: 129H0322

UltraPure Distilled Water

Cover slides ⌀ 25mm, No. 1.5 or 1.5H

Attofluor Cell Chamber
Thermo Fisher Scientific
Cat#: A7816

Equipment:

10 ml centrifugation tube
10 ml pipette

Quorum Emitech K100X glow discharger
mixer

Before start

Have the following solutions premixed:

Concanavalin A (ConA) solution:
Concentration: 1 g/l
resolve 10 mg ConA in 10 ml distilled water, vertex
store at -20 °C

Cover slide preconditioning

1 Rinse a 25mm cover slide No. 1.5 or No. 1.5H.
Dry with Kim wipe, remove leftover driplet with optical tissue.

1.1 Plasma clean the cover slide to a hydrophilic negative charged surface. 45s
Quorum Emitech K100X glow discharger at 25 mA 00:00:45

1.2 Place the cover slide in the cell chamber.

ConA slide preparation 30m

2 Defrost the stock ConA of a concentration of [M] 1 mg/mL

2.1 Pipette 1 mL ConA solution into the cell chamber.

2.2 Let the ConA settle, covered with Kim wipe for 00:10:00 at the bench. 10m

2.3 Remove the ConA from the chamber back in its container. 20m
Let the cover slip dry, covered with Kim wipe for 00:20:00 .

Note

The prepared ConA cover slides can be used within a week, if stored in ways that secure its not exposed to dirt and dust.