

ASSIGNMENTS

7.02 StarCellBio Prototype

7.03 Lorem ipsum



Ask a Post Doc



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Notebook



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Assignment: 7.02 StarCellBio Prototype

Your new lab is studying vulva development in *C. elegans*. You screen a chemical library and identify four new drugs, which all affect vulva development, and you name them Vulvarine 1, 2, 3 and 4.

Increasing amounts of Vulvarines 1 and 2 result in a vulvaless phenotype in the wild-type worms whereas treatment of wild-type worms with Vulvarines 3 and 4 results in a multivulva phenotype. Your advisor tells you that some proteins involved in the vulva development pathway are already known and she advises you to do western blots to test if some of these proteins are affected by these treatments.



NOTEBOOK

Look up the proteins involved in the vulva development pathway and record which proteins you will use in your experiment.

OBJECTIVES

- 1 Use the StarCellBio software to analyze the western blots from worms treated with increasing doses of Vulvarines. Choose the gene products whose expression you would like to check.
- 2 Which proteins are affected by Vulvarine treatment? What is the critical Vulvarine concentration for each treatment?
- 3 Look up the biological function of each protein whose expression is affected by the drug and speculate as to how the change in its levels may have a role in vulva development.

Go to experiment

Experiment 1

Experiment 2



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Setup

Procedure

Experimental Setup

Western Blot

Flow Cytometry

Microscopy

Experimental Setup

Set up your experiment to treat the wild-type worms with the four new drugs, Vulvarines 1-4, identified in your chemical screen.

Strain	Treatment	Concentration	Start	Duration	Collection Time
Wild type	Buffer	0 nm	immediately	3 d	3 d
Wild type	<input type="text" value="Buffer"/>	<input type="text" value="0 nm"/>	immediately	3 d	3 d

+ Treatment Protocol

Finish setup



NOTE

After you 'Finish setup,' you will be unable to change your treatment protocols. To set up new treatment protocols, create a new experiment.

Experiment 1

Experiment 2



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Setup

▼ WB EXPERIMENT 1

Lysate Preparation

Gel Preparation

Antibody Selection

Results

+ WB Experiment

Western Blot

Flow Cytometry

Microscopy

Lysate Preparation

Select the samples from which you would like to prepare lysates.

Strain	Treatment	Concentration	Start	Duration	Collection Time
Wild type	Buffer	0 nm	immediately	3 d	3 d
Wild type	Buffer	0 nm	immediately	3 d	3 d

+ Treatment Protocol

Run experiment