

Yeast ORFan Gene Project: Module 7 Worksheet

Gene Deletion Phenotypes

SCM

D

Data Tables for Bud Size, Nuclear Localization and Actin Distribution:

Upon comparison to wildtype – do any parameters seem distinctly different (i.e. do any of the data for your mutant strain appear significantly different than the data for a wildtype strain?) Whether the answer is Yes or No - what do you think this could mean for the function of your protein?

PROPECH

Y

Reference (growth in standard conditions) Graph:

NaCl 0.85M

Graph:

Diamide 1.4mM Graph:

DTT 1.6mM

Graph:

Paraquat 200 µg/ml Graph:

Gene-by-environment phenotype summary:

What do you think these data combined could mean for the function of your protein?:

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YEAST FITNESS

DATABASE

Section 1: Phenotypes. Gene-Drug Relationships:

Drug 1

Name:

Fitness Defect Z-score:

P-value:

Mechanism of Action:

Citation:

What do you think it could mean for the function of your protein, that cells without your protein are sensitive to this drug?

Drug 2

Name:

Fitness Defect Z-score:

P-value:

Mechanism of Action:

Citation:

What do you think it could mean for the function of your protein, that cells without your protein are sensitive to this drug?

Drug 3

Name:

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Fitness Defect Z-score:

P-value:

Mechanism of Action:

Citation:

What do you think it could mean for the function of your protein, that cells without your protein are sensitive to this drug?

Look at the different mechanisms of action for the three drugs you have researched. When you combine this information what do you think it could mean for the function of your protein?:

Section 2: Co-fitness Interactions. Gene-Gene Relationships:

[For students with little other data about their possible gene function please complete this section about gene interaction descriptions.]

Gene Name #1:

Description (from SGD):

Gene Name #2:

Description (from SGD):

Gene Name #3:

Description (from SGD):

Gene Name #4:

Description (from SGD):

Gene Name #5:

Description (from SGD):

Gene Name #6:

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Description (from SGD):

Gene Name #7:

Description (from SGD):

Gene Name #8:

Description (from SGD):

Gene Name #9:

Description (from SGD):

Gene Name #10:

Description (from SGD):

Look at the different functional descriptions for the 10 genes you have researched. When you combine this information what do you think it could mean for the function of your protein?:

Gene Ontologies

Enriched GO terms of interactors

Process:

Function:

Component:

Based on these results – what role do you believe your protein might be playing in the cell?