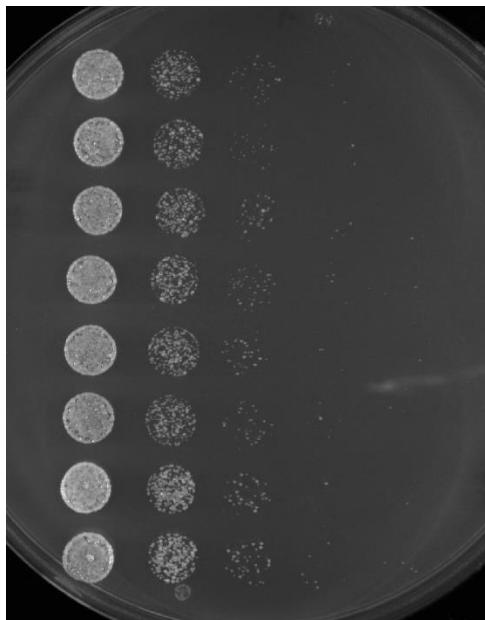


Unless noted otherwise, the following images show YPDA plates that were incubated for ca. 1 day at 30 °C. All strains carried the indicated Abf1 constructs on pRS315, while the chromosomal *ABF1* gene was deleted. If one of the three independent clones after transformation for each construct did not show the same growth rate as the others, it is labeled as „outlier“ and we categorized the growth rate according to the two similarly growing clones. All rating is relative to the growth of the strain with wild type (WT) *Abf1* on the same plate.

growth
rate score

++++



FUS¹⁻¹⁶³12E + GR

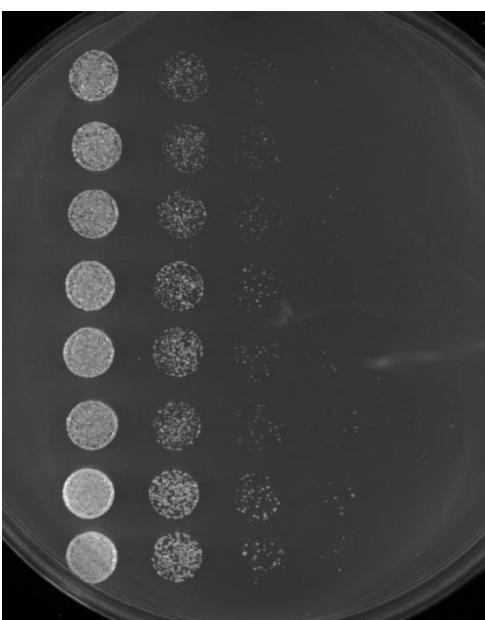
++++

FUS¹⁻¹⁶³12E + Gal4^{M2}

++++

Abf1 WT

++++



FUS¹⁻¹⁶³12E + VP16

++++

FUS¹⁻¹⁶³12E + Gcn4

++++

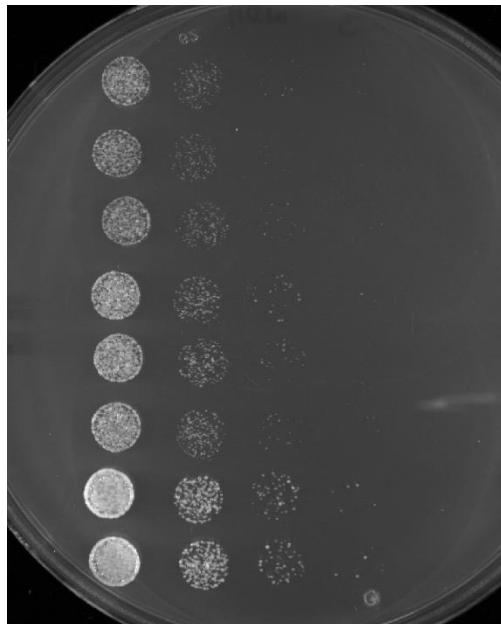
Abf1 WT

growth
rate score

++

+++

++++



Abf1 IDR1⁸⁷⁻³¹¹ + Gal4^{G4}

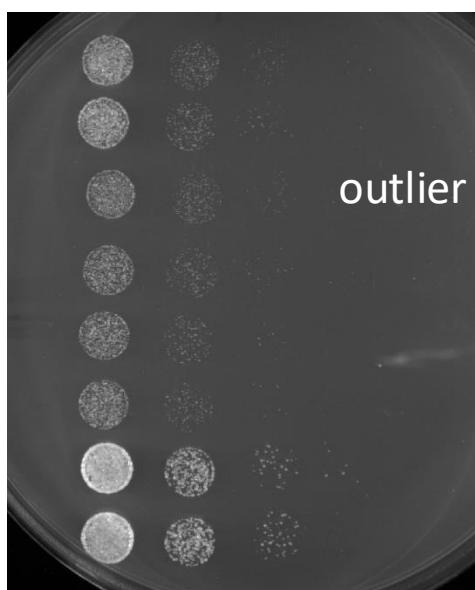
Rap1²³¹⁻³⁶¹ + Gal4^{G4}

Abf1 WT

+++

++

++++



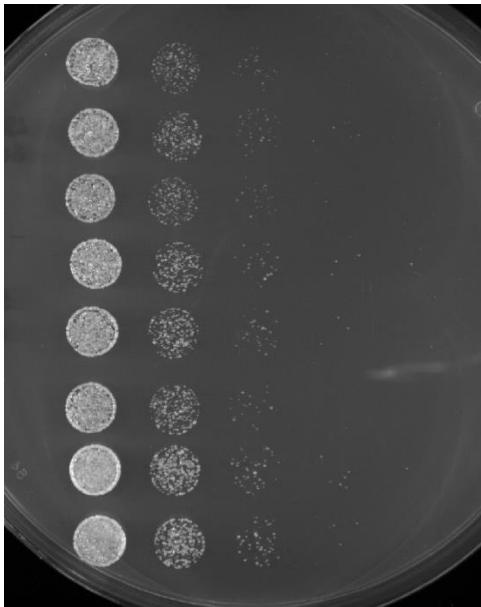
LS-8

Sup35¹⁻¹³¹ + Gal4^{G4}

Abf1 WT

growth
rate score

++++



FUS¹⁻¹⁶³12E + Gal4^{G4} distr.

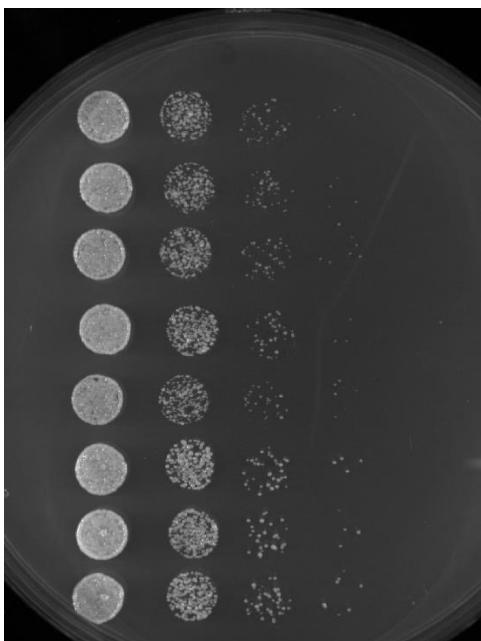
++++

T. phaffii

++++

Abf1 WT

++++



LS-2

++++

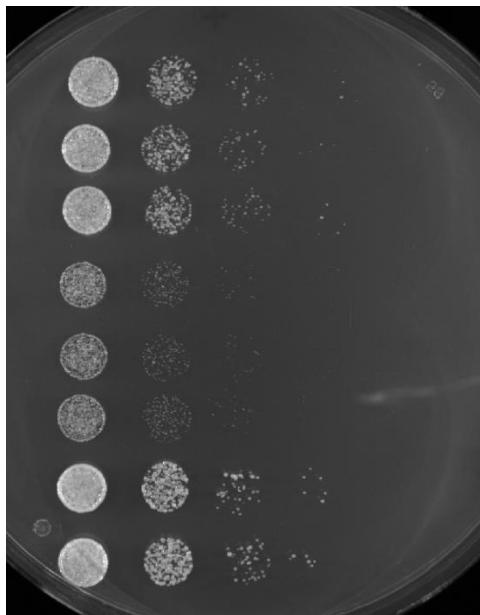
LS-3

++++

Abf1 WT

growth
rate score

++++

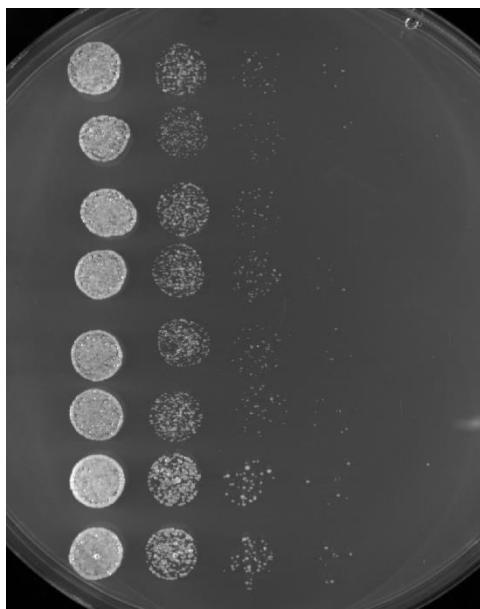


LS-9

LS-13

Abf1 WT

++++



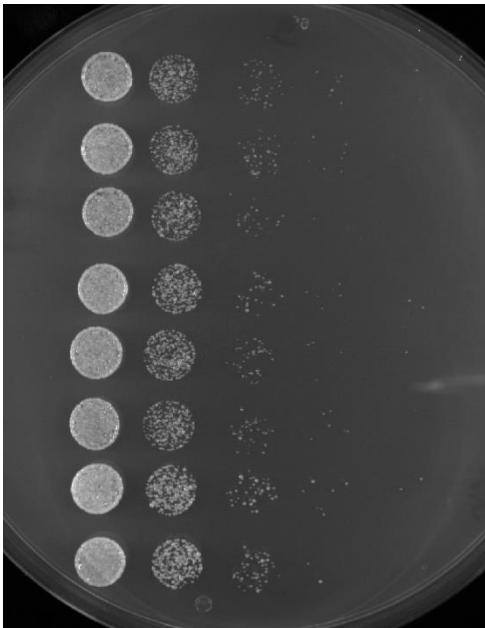
LS-14

Reb1¹⁻¹²⁰ (PKEEEEGGL)

Abf1 WT

growth
rate score

++++



S. kudriavzevii

++++

S. mikatae

++++

Abf1 WT

++++

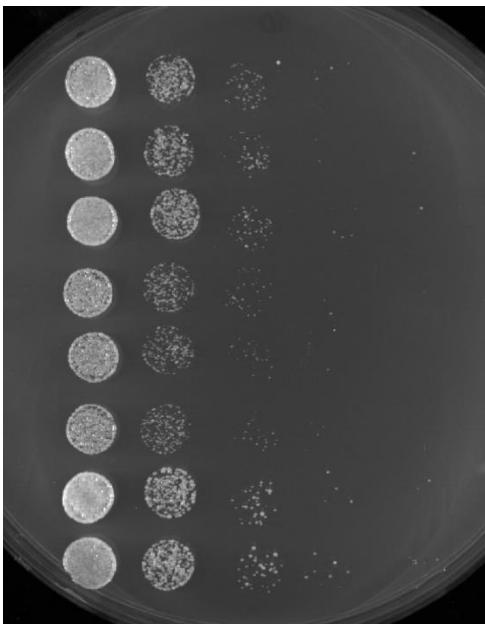
S. uvarum

+++

T. delbrueckii

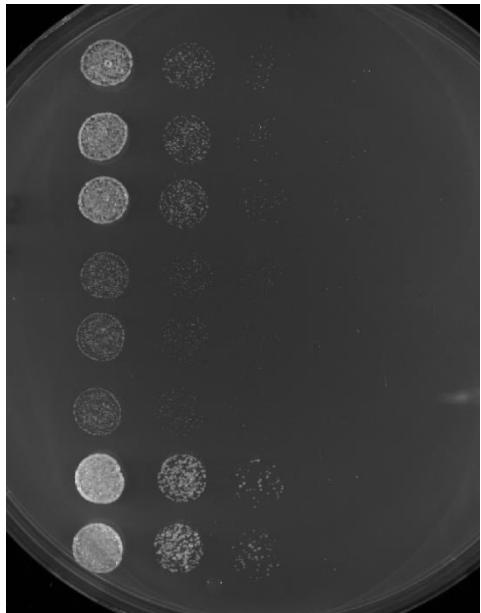
++++

Abf1 WT



growth
rate score

+++

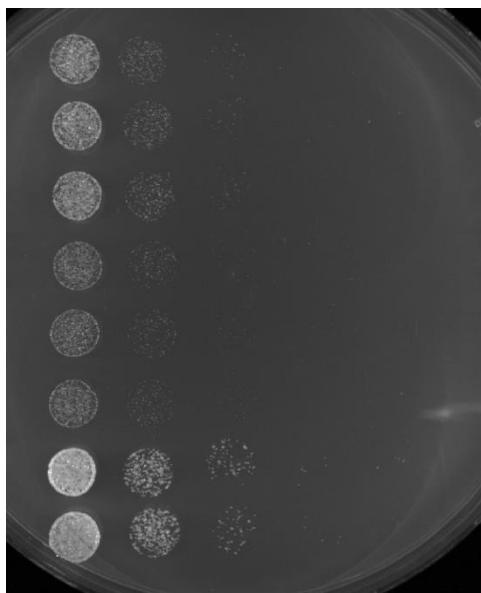


FUS¹⁻¹⁶³12E + p65

FUS¹⁻¹⁶³12E + Gal4^{G4}
aromatic clusters

Abf1 WT

+++



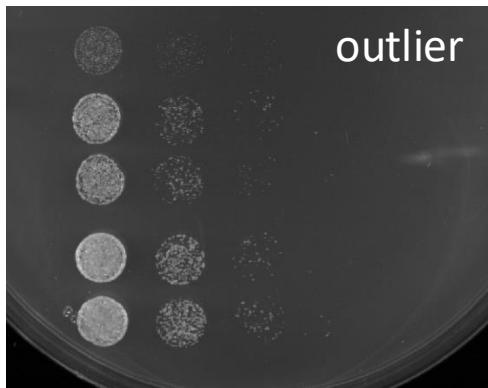
FUS¹⁻¹⁶³12E + p65 distr.

Sup35¹⁻¹³¹ + p65

Abf1 WT

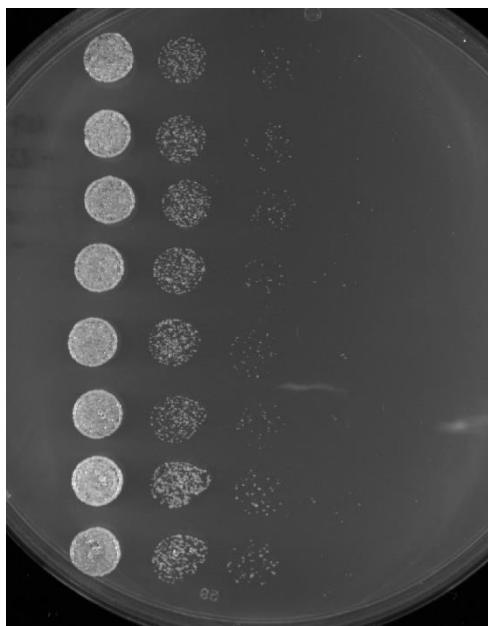
growth
rate score

+++



Reb1^{1-420}

++++



LS-1

++++

LS-10

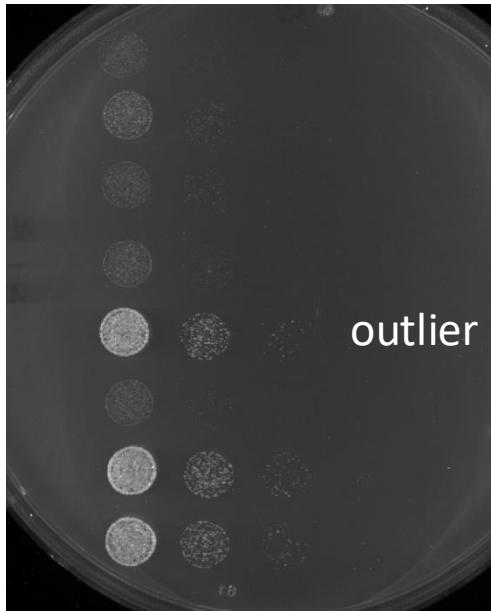
++++

Abf1 WT

++++

growth
rate score

++



K. lactis full length

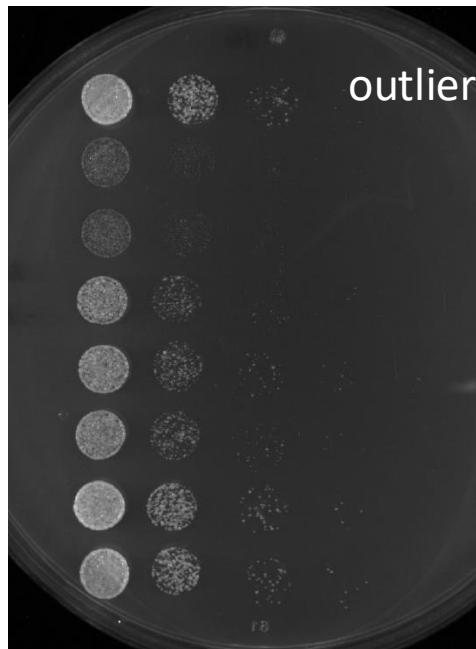
++

LS-7

++++

Abf1 WT

++



$\Delta\text{IDR1} \& \text{IDR2}^{449-623}$

++++

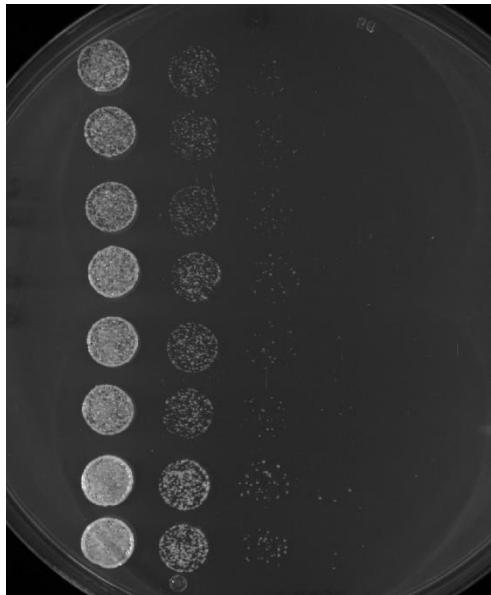
Gal4⁷⁶⁸⁻⁸⁸¹

++++

Abf1 WT

growth
rate score

+++



$\text{FUS}^{1-163}12\text{E} + \text{Gal4}^{\text{G4}}$
context $\Delta\text{E/D}$

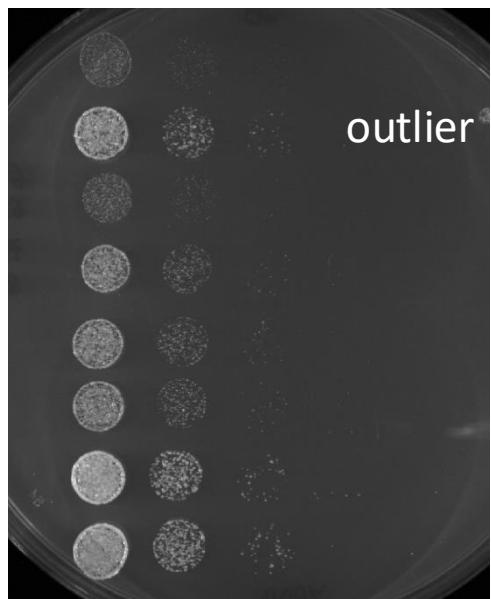
+++

$\text{FUS}^{1-163}12\text{E} + \text{Gal4}^{\text{G4}}$
motif hydro distr.

++++

Abf1 WT

++



$\text{FUS}^{1-163}12\text{E} + \text{TDP-43}$

+++

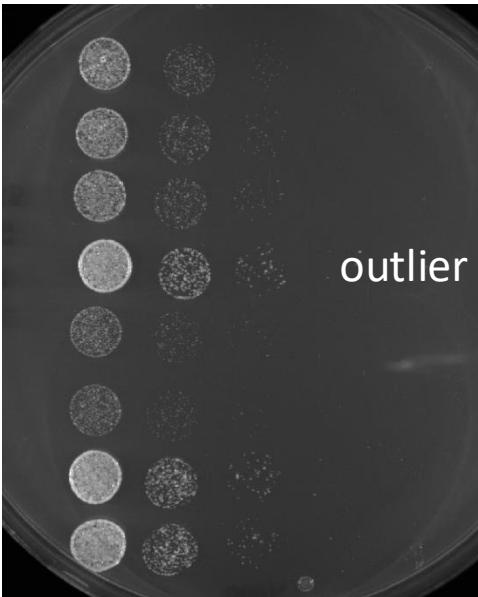
$\text{FUS}^{1-163}12\text{E} + \text{Y/M}$

++++

Abf1 WT

growth
rate score

+++



$\text{FUS}^{1-163} 12\text{E} + \text{GR distr.}$

++

++++

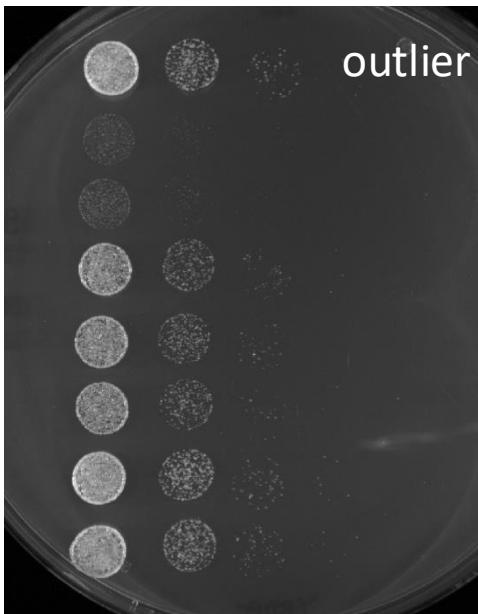
$\text{Sup35}^{1-131} + \text{GR}$

Abf1 WT

++

++++

++++



$\text{Sup35}^{1-131} + \text{GR distr.}$

LS-6

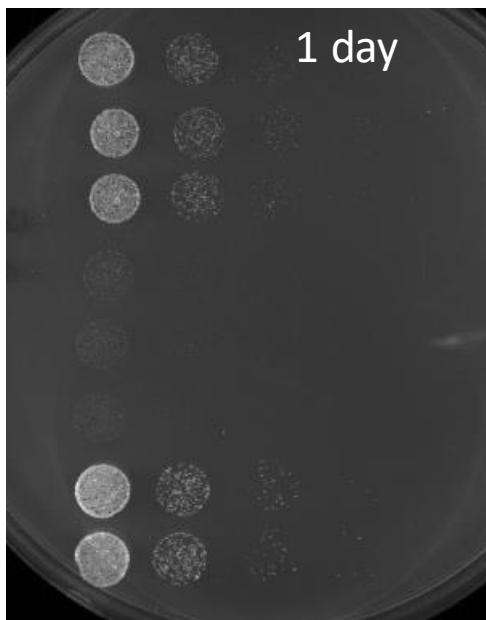
Abf1 WT

growth
rate score

++++

+

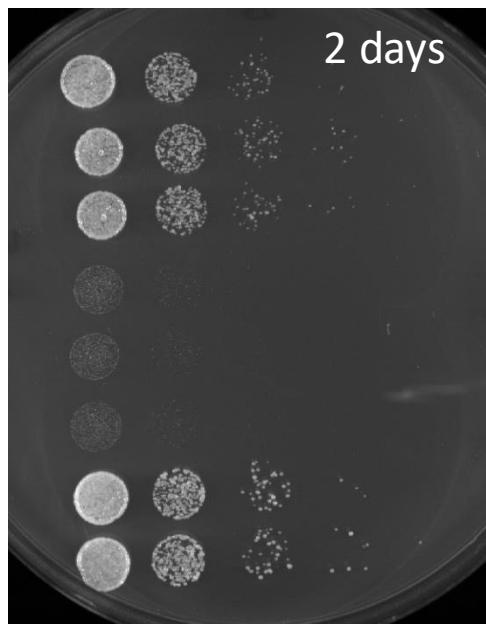
++++



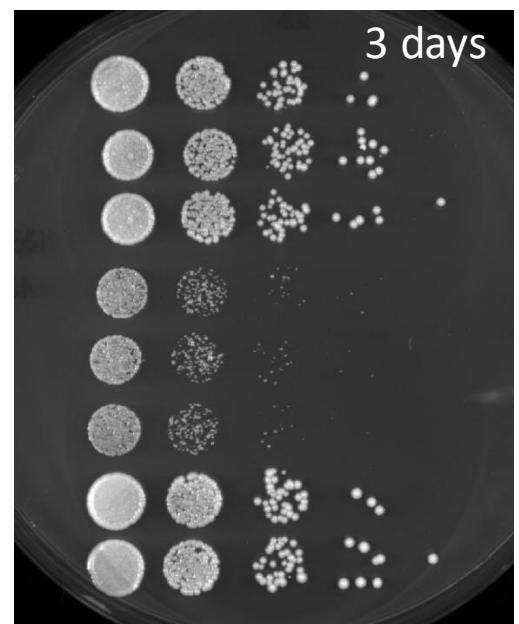
Pho4¹⁻²⁴⁹

LS-15

Abf1 WT



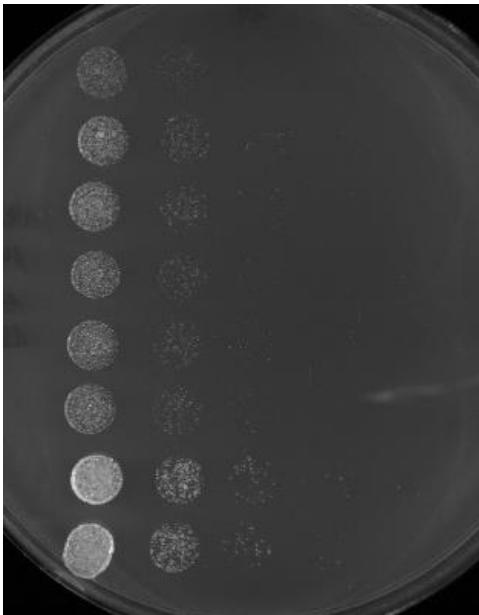
2 days



3 days

growth
rate score

+++



Altered valence 2

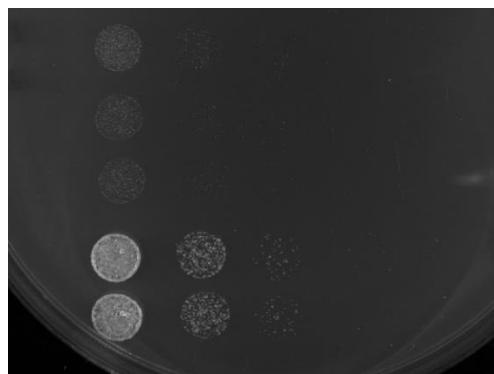
+++

TDP-43 distr.

++++

Abf1 WT

++



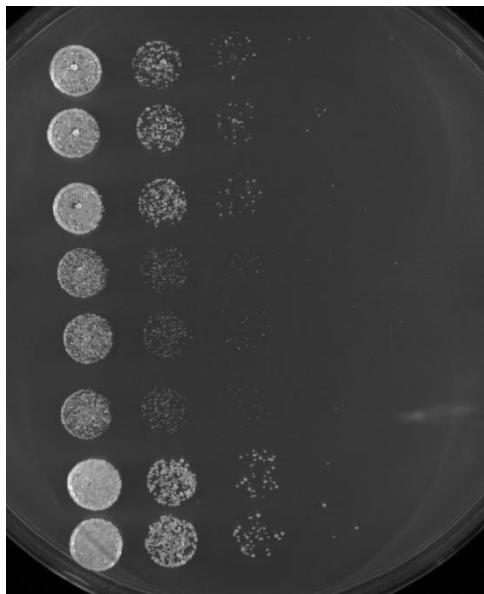
$\text{FUS}^{1-163} \text{12E} + \text{Abf1}^{\text{G4}}$

++++

Abf1 WT

growth
rate score

++++



Gal4⁷⁶⁸⁻⁸⁸¹ shuffle 1

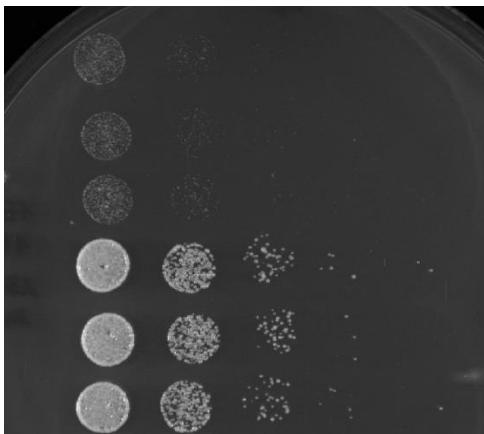
+++

Gal4⁷⁶⁸⁻⁸⁸¹ shuffle 2

++++

Abf1 WT

++



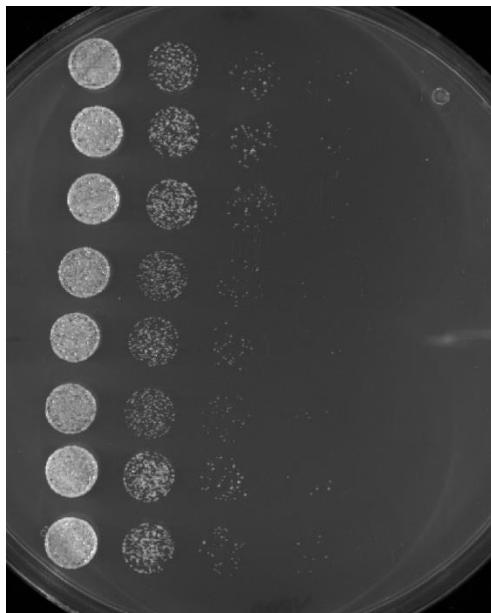
Gal4⁷⁶⁸⁻⁸⁸¹ shuffle 3

++++

Abf1 WT

growth
rate score

++++



ΔIDR1

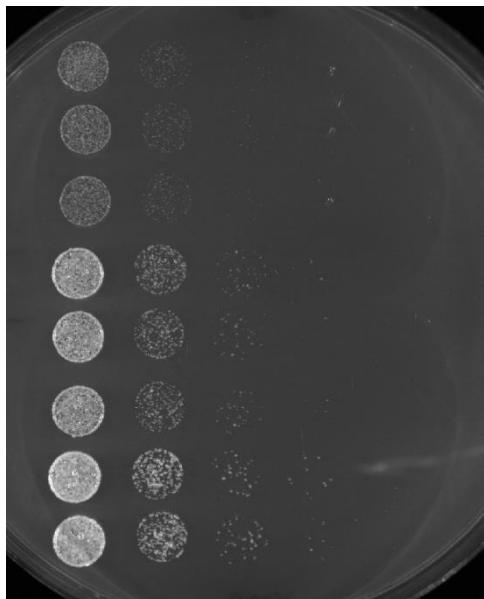
++++

$\Delta\text{IDR1} \& \text{IDR2}^{449-662}$

++++

Abf1 WT

+++



$\text{FUS}^{1-163}12\text{E} + \text{Gal4}^{\text{G4}}$

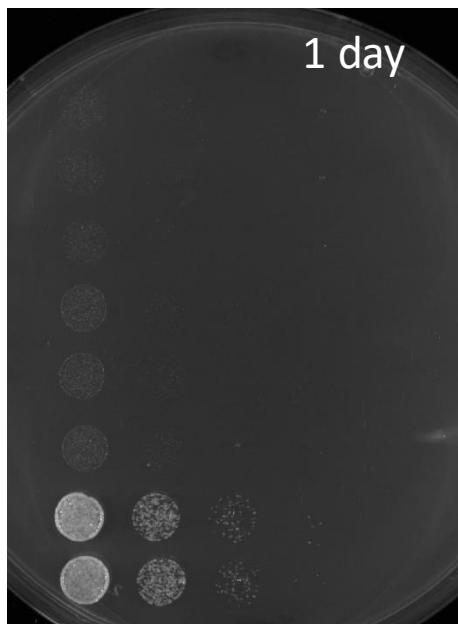
++++

Altered valence 1

++++

Abf1 WT

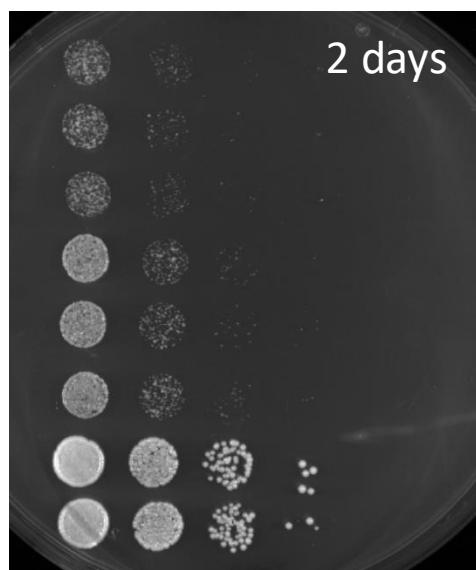
growth
rate score



FUS¹⁻¹⁶³12E + Gal4^{G4}
all ΔE/D

NCS-506-Flag

Abf1 WT



FUS¹⁻¹⁶³12E + Gal4^{G4}
all ΔE/D

NCS-506-Flag

Abf1 WT

growth
rate score

++

1 day

+

++++

outlier



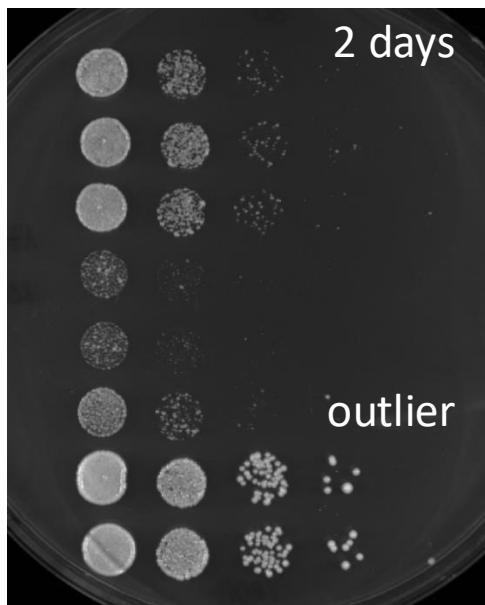
NCS-508

NCS-17

Abf1 WT

2 days

outlier



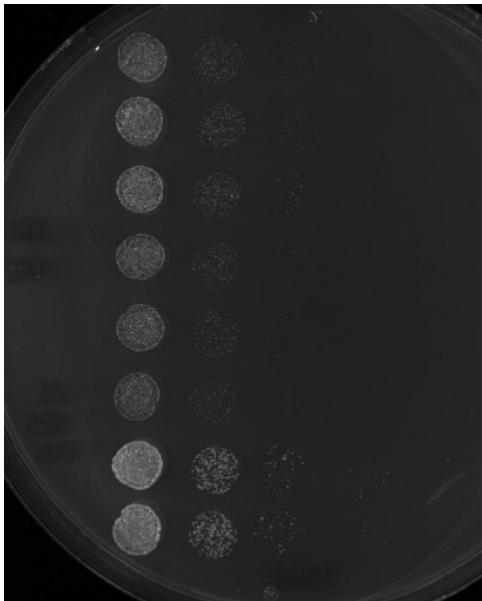
NCS-508

NCS-17

Abf1 WT

growth
rate score

+++



NCS-3

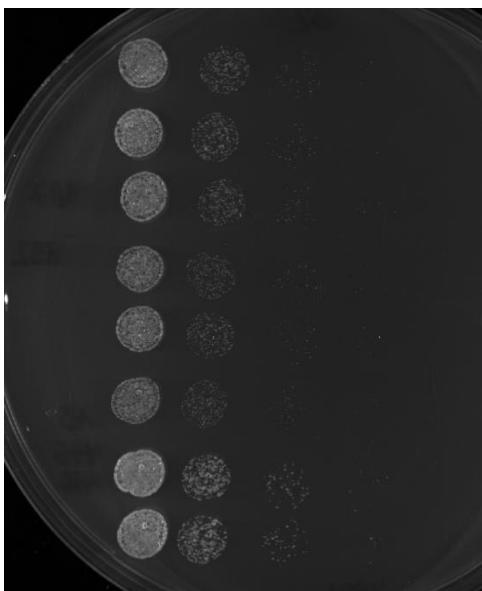
+++

NCS-504

++++

Abf1 WT

+++



NCS-1010

+++

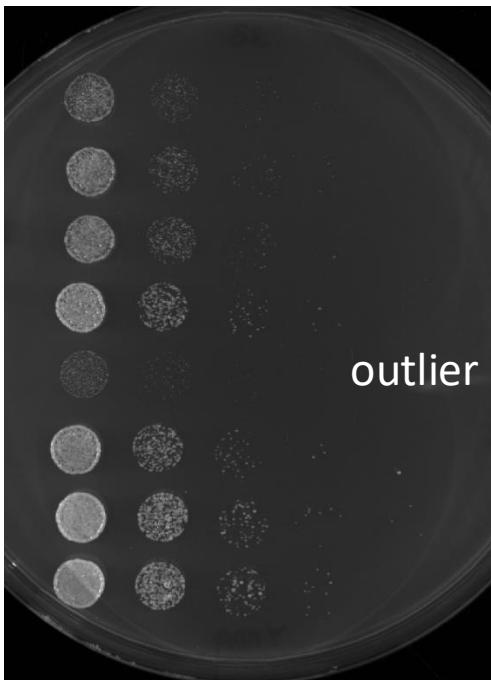
NCS-1502

++++

Abf1 WT

growth
rate score

+++



NCS-1508

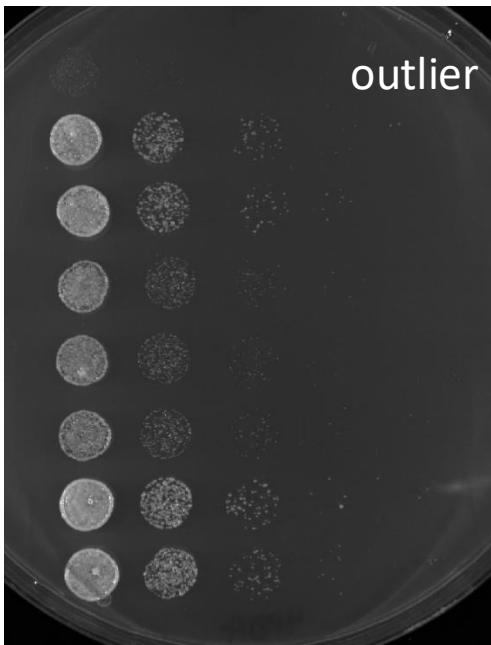
++++

NCS-509

++++

Abf1 WT

++++



NCS-510

+++

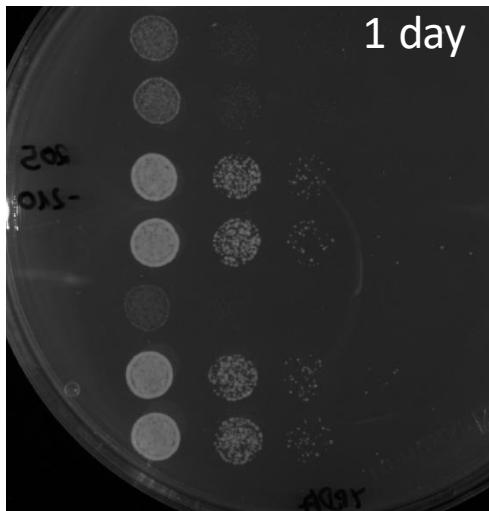
NCS-21

++++

Abf1 WT

growth
rate score

++

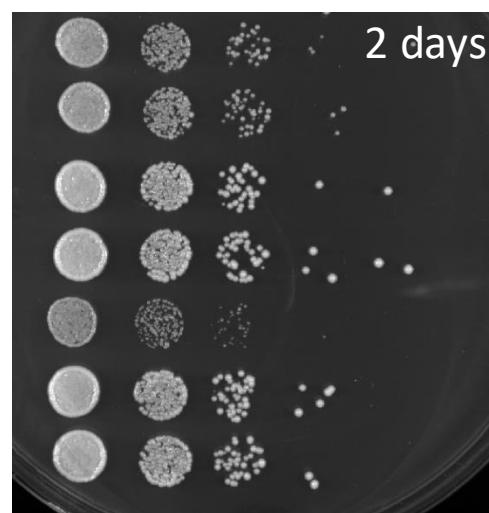


NCS-38

(not part of this study)

NCS-44

+++



NCS-38

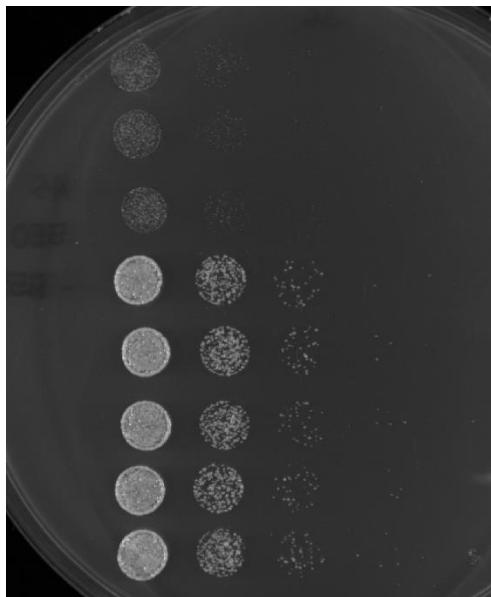
(not part of this study)

NCS-44

Abf1 WT

growth
rate score

++



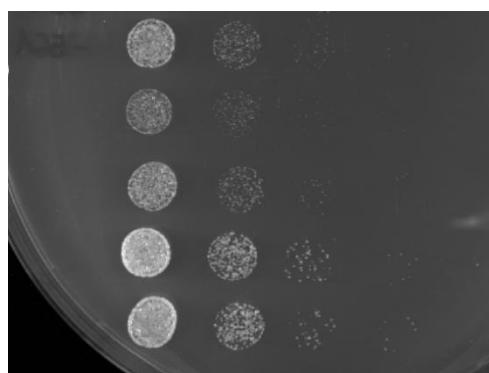
Sup35¹⁻¹³¹ + p65 distr.

(not part of this study)

++++

Abf1 WT

+++

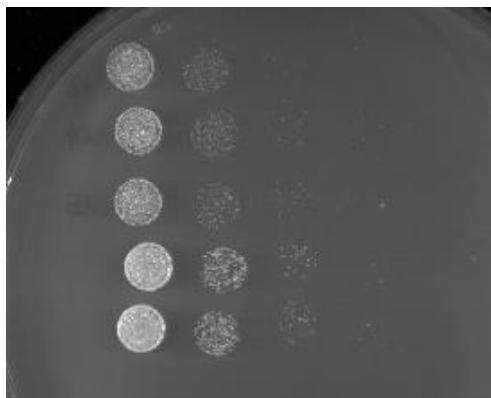


FUS¹⁻¹⁶³12E + EM

++++

Abf1 WT

+++

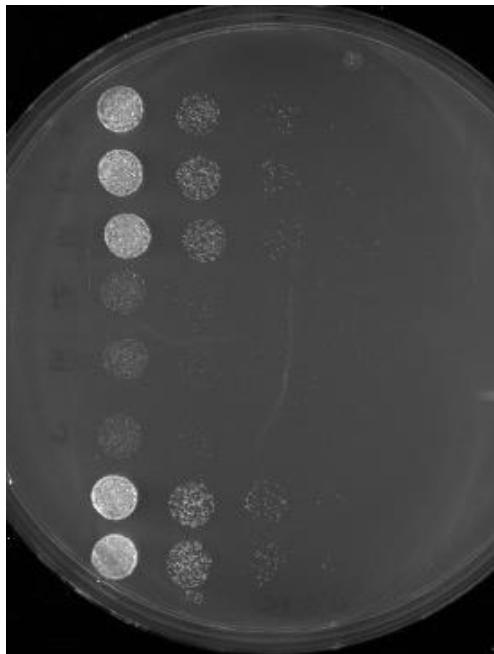


FUS¹⁻¹⁶³12E + Gal4^{G4} shuffle

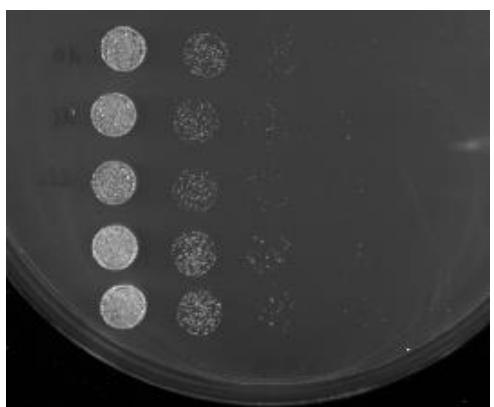
++++

Abf1 WT

growth
rate score



not part of this study



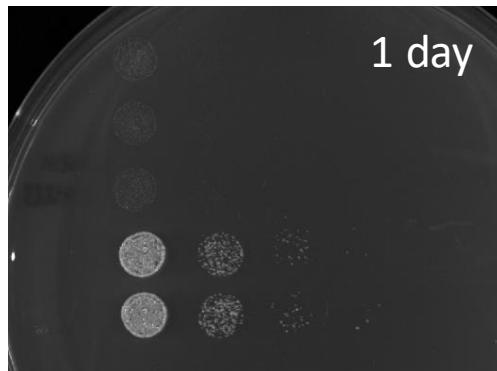
$\text{FUS}^{1-163} 12\text{E} + \text{Gal4}^{\text{G4}}$ distr. II

Abf1 WT

growth
rate score

+

++++

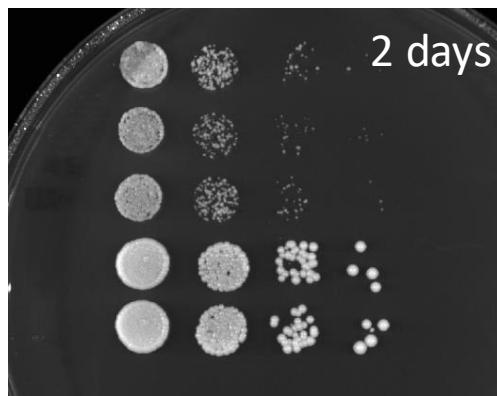


NCS-21 hydro→polar

Abf1 WT

+

++++



NCS-21 hydro→polar

Abf1 WT