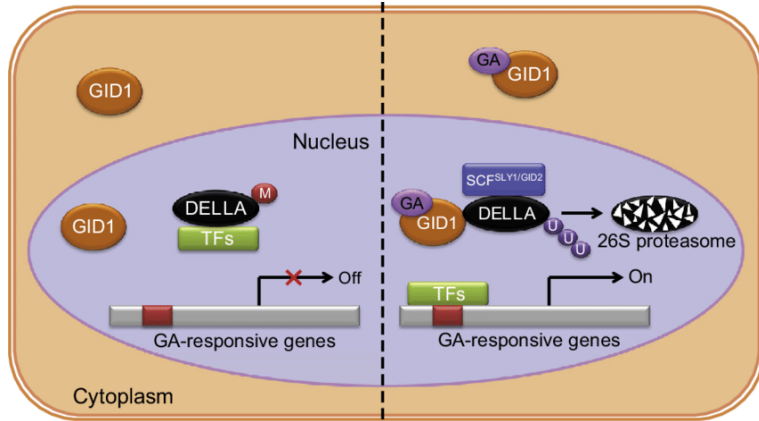


# Growth of secondary mutants : suppressors of *gai*



In absence of GA (left), the DELLA protein called GAI, binds to the transcription factors blocking the gibberellin response

➤ no growth

In presence of GA (right), the DELLA protein is degraded and the gibberellin response is activated

➤ growth

*Arabidopsis thaliana*

*gai* (deletion of 51bp)

➤ Don't grow

*gai gar15* and *gai gar17*

➤ Grow again

*gar17* : deletion of 52bp

*gar15* : other deletion of 19bp

➤ Shift in the reading frame of the *gai* gene !

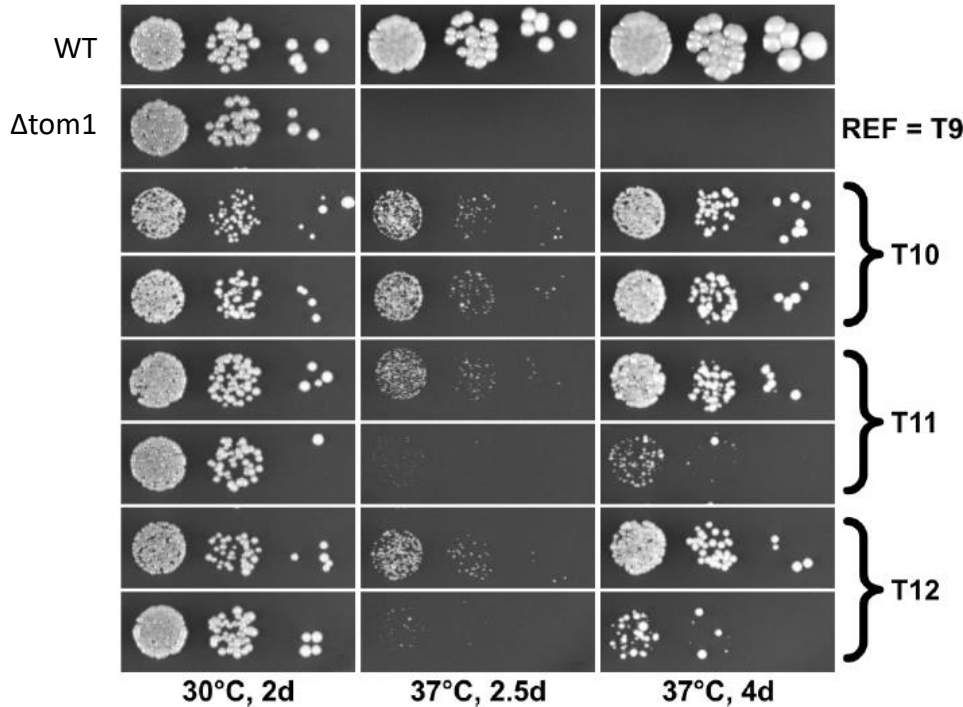
# Growth of secondary mutants : suppressors of $\Delta tom1$

*Saccharomyces cerevisiae*

TOM1 ubiquitinates  
unassembled ribosomal proteins  
 $\Delta tom1 \rightarrow$  accumulation of  
ribosomal proteins + no growth  
at 37°C

T10 and T11 : mutations in *sch9*  
and *kre6* for each of them (direct  
interactors)

T12 : mutation in *Kar2* (indirect  
interactor) and mutation in *GLR1*  
and *YNR075C-A* (interaction  
unknown)



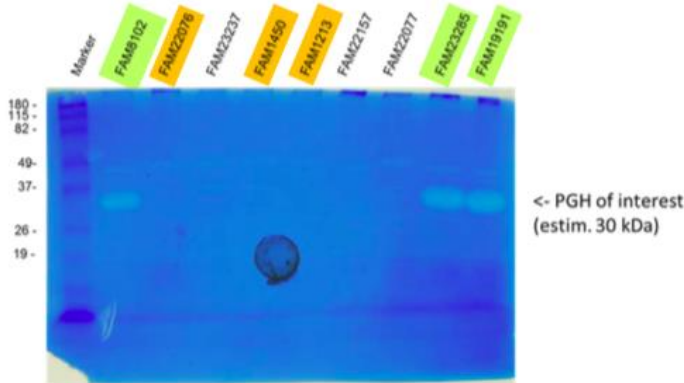
# Gene associated with cheese ripening

## Phenotype A

- FAM8102c1c1
- FAM23285
- FAM19191

## Phenotype B

- FAM22076
- FAM1450
- FAM1213



PGH = Peptidoglycan hydrolase (useful for cheese ripening)

New gene in A or  
loss of gene function in B ?

*Lactobacillus helveticus*

*De novo* assembly  
because there is no  
specific reference for our  
strains

30kDa = c. 810bp

New gene in A resembling  
*Lhv\_2053* and coding for a  
lysin (component of PGH)