## **SACCHAROMYCES CEREVISAE**



References: CMS/D., CMS/E., CMS/F., CMS/G., CMS/H., CMS/TH., CMS/Y, CMS/I.



## Réf: CMS/I.

Rho strain (strain [E] of the metabolism kit)

It differs from strain D only by a mutation altering cytochrome B. It can not breathe and will not grow on glycerol which is a solely breathable substrate. It is a mutation of the mitochondrial genome.

Réf : CMS/E.

Strain Ade2 (strain [Y] of the yeast Ade2 mutagenesis kit)

It is auxotrophic for adenine. Its mutation on the gene 2 of the adenine biosynthesis chain results in the accumulation of a red pigment. This strain forms red colonies on rich YPD2 medium. If exposed to UV, some colonies may show a white phenotype (see "Ade2 yeast mutagenesis kit"). The YPD2 medium has been specially designed for the expression of this strain.

Réf : CMS/Y

Strain Ade4 trp4 (strain [H] of the minimum medium and genotype kit)

The growth of this strain requires the presence of adenine and tryptophan.

Réf: CMS/H.

Strain hist1 trp1 (strain [G] of the minimum medium and genotype kit)

This strain is auxotrophic for histidine and tryptophan: it cannot synthesise these two amino acids from simple organic compounds (like sugars). These two compounds must be provided already synthesised in the culture medium.

Réf: CMS/G.

Strain sac - (strain [F] of the metabolism kit)

It differs from the D strain only by a mutation altering the synthesis of the saccharase (is not secreted outside



the cell). It will not therefore grow on saccharase .

Réf: CMS/F.

Thermosensitive strain (strain [Th])

This strain hardly grows to 38° C: it forms only a few small colonies. Indeed, it is mutated on a gene responsible for the synthesis of an endonuclease involved in replication. This enzyme is functional at room temperature but not at 38° C. In addition, the microscopic observation of the few colonies that managed to grow to 37° C (residual growth) makes it possible to highlight the anomalies related to the replication problem (triple budding, large cells, abnormal forms).

Réf: CMS/TH.

Wild strain (strain [D] of the metabolism kit)

Réf: CMS/D.

