

SELECTYS® THIOL ROUGE



Strain selected to enhance fresh, fruity aromas in red wines

CHARACTERISTICS

SELECTYS® THIOL ROUGE is a *Saccharomyces cerevisiae* strain belonging to the SOFRALAB GROUP's internal collection® and identified by the Innovation, Research & Development department through a programme enabling a strain to be selected on the basis of its genetic profile and aromatic impact.

SELECTYS® THIOL ROUGE was chosen because it:

- carries the nucleotide sequence (+ 38 bases) in the **IRC7 gene** coding for the synthesis of the protein linked to the revelation of thiols (β-lyase activity),
- produces aromatic compounds which act as aroma vectors that amplify the **fruity, fresh aromatic profile of red wines**.

SELECTYS® THIOL ROUGE favours the expression of fresh fruitiness with notes of black berries.

Technical Point

The impact of thiols on the aromatic profile is more complex to explain in red wines than in white or rosé wines. It is not just a matter of the aromatic contribution of 4-MMP, 3-MH or A3MH with their typical notes of boxwood, citrus or exotic fruit.

Recent studies have shown that it is **the interaction of these thiol molecules with each other or with other families of molecules** such as furans (furanol: ripe strawberry, candied fruit), terpenes (β-damascenone: rose, red fruit) or esters that contributes to the overall aroma of wines. **Aromatic compounds act as vectors or carriers of aromas, amplifying or modifying the aromatic profiles of wines.** These mechanisms contribute to the aromatic complexity and fruity expression of red wines.

OENOLOGICAL PROPERTIES

Fermentation kinetics	Recommended FA temperature for thiols	Resistance to ethanol	Production of glycerol	Production of SO ₂	Production of volatile acidity	Production of H ₂ S	Nitrogen requirements
Fast	22 - 25°C	>14.5% vol. <17% vol.	Medium to high	Low to medium	Low to medium	Low	Low to medium

The nutritional requirements of **SELECTYS® THIOL ROUGE** are low to medium depending on the matrix. However, adequate amino acid nutrition at the start of fermentation is recommended, in order to enhance the desired aromatic profile.

TEST RESULTS

1 - AROMA PRODUCTION

SELECTYS® THIOL ROUGE provides significantly higher concentrations of thiols (3MH, 4MMP: Figure 1A), terpenes and norisoprenoids (Figure 1B) than a yeast strain lacking 2 long alleles of the *IRC7* gene.

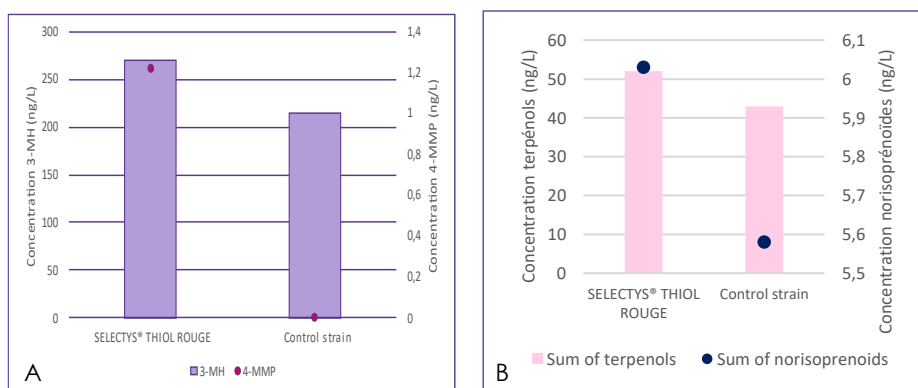


Figure 1. Concentrations of thiols (A), terpenes and norisoprenoids (B) measured after alcoholic fermentation in Syrah wines made with **SELECTYS® THIOL ROUGE** or a control strain with 2 short alleles of the *IRC7* gene. Dose used = 20 g/hL.

2 - SENSORY PROFILE

The interaction of the different aromatic molecules produced by **SELECTYS® THIOL ROUGE** in the course of alcoholic fermentation contributes to aromatic intensity and complexity. **The resulting wines have a fresh, fruity "black berry" aromatic profile** (Figure 2).

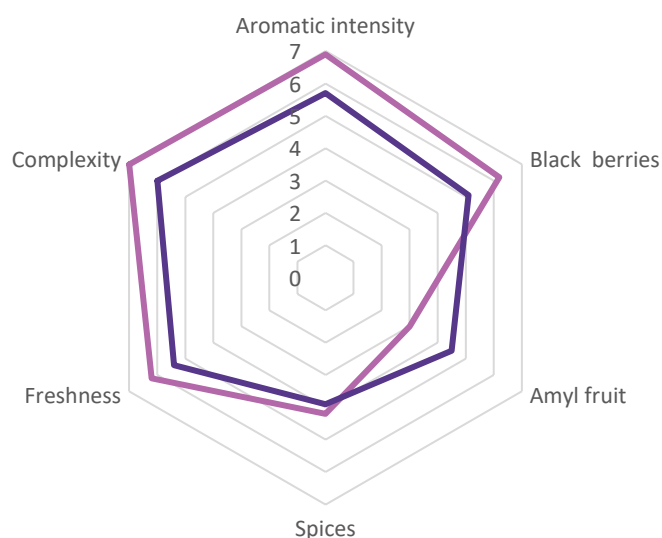


Figure 2. Sensory analysis of the wines. Results obtained by a tasting panel made up of 8 oenologists.

— SELECTYS® THIOL RED
— Control strain

APPLICATIONS



Ideal for making red wines with fresh, intense black berry aromas.



Ensures safe fermentation with regular kinetics.



Suitable for fermenting all varieties with 'thiol' potential.

INSTRUCTIONS FOR USE

Rehydration :

Rehydrate the yeast in 10 times its volume of water at a temperature of 37° C (\pm 2° C). Allow to stand for 10 minutes, then mix gently until the mixture is homogeneous. Wait another 10 minutes and stir. Gradually add must to the rehydrated yeast, in order to reduce the temperature difference between the mixture and the tank to be inoculated. At the time of inoculation, the temperature difference between the preparation and the must should not exceed 5-7° C.

Inoculation :

Pour the solution into the must and blend with the mass.

Technical information :

To fully develop an intense aromatic profile, we recommend controlling the amount of copper in the must. Copper reacts with the -SH functions of thiols, causing them to precipitate. This will limit their impact on the final aromatic perception.

When copper levels in the must exceed 0.5 mg/L, we recommend using **DIWINE® THIOL**.

Precautions for use :

Product for oenological and specifically professional use.

Use in accordance with current regulations.

DOSAGE

Yeasting red must: 20 g/hL

PACKAGING

500g.

STORAGE

Store in a cool, dry place (<16° C if possible) in the original packaging.

Use immediately after opening.

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