



## Enzyme to achieve protein stability by the degradation of heat unstable proteins in wine

**Rapidase® Proteostab** is a liquid enzyme formulation containing specific protease activities for the degradation of unstable proteins responsible for haze formation in wine.

### Rapidase® Proteostab

This fungal acid protease (Aspergillopepsin I) produced by the controlled fermentation of a selected strain of *Aspergillus niger*, is able to reduce unstable protein content in the must, and active on both chitinases and thaumatin-like proteins present in white and rosé wines. Naturally contains negligible levels of *Cinnamyl esterase* (nFCE) in order to preserve aroma freshness whichever your yeast choice might be.

The correct use of **Rapidase Proteostab** allows for protein stability in wine, avoiding any further bentonite treatment.

### Instructions for use and dosage

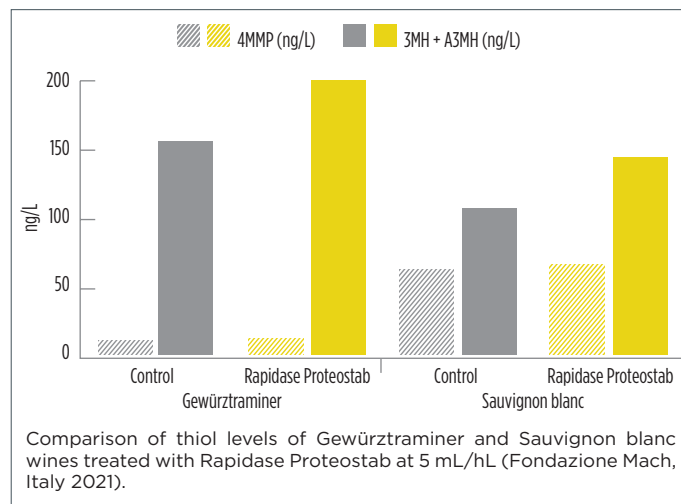
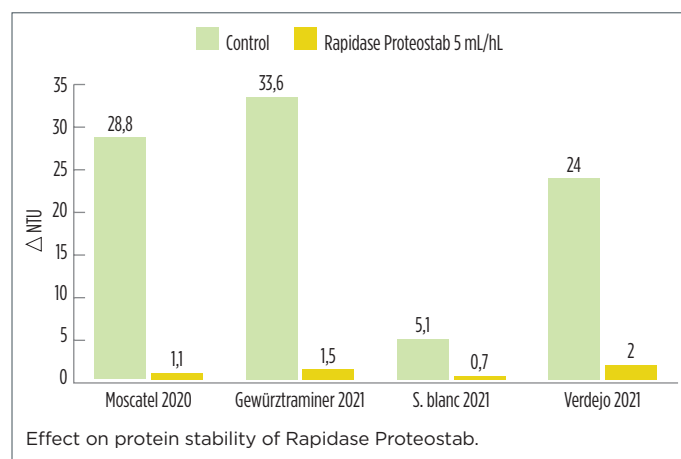
- Add to the must (clarified or not) just before heat treatment (flash pasteurization: 70-75 °C for 1-2 min) to unfold instable proteins and let them be hydrolyzed by the enzyme preparation. Then, cool the must as fast as possible and follow with your standard winemaking process protocol.
- Dilute 10 times prior to addition.

WHITE AND RED WINES		
T°	DOSE	TIME
70-75 °C	5 mL/hL	2 min.

- According to local regulations, protease can also be used on red wines and without heating.
- The use with no heat treatment in juice may improve protein stability depending on the grape variety and the vintage; in this case a longer contact time (during alcoholic fermentation) and a higher dose is needed. An addition of bentonite at 10 g/hL will inactivate the enzyme after this treatment.
- Protein stability can be tested by the usual heat test. However, if further treatments with CMC or KPA are planned, a more severe test (tannin test) should be used, since those treatment can interfere with other (stable) proteins. In this case, according to the test result, a light bentonite treatments can be needed to achieve complete deproteinization.
- Active in the wine's pH range and in the presence of standard SO<sub>2</sub> concentrations.
- Eliminated by bentonite.

### Tested and validated

To offer the best efficiency in application each **Rapidase** formulation is developed and **tested** with the world most renowned wine research institutes and **validated** in wineries at production scale. Positive impact on aroma composition (thiol levels) it has been observed in different grape varieties such us Sauvignon blanc and Traminer.



### Packaging and storage

- Available in 1 Kg plastic drums.
- Store refrigerated at 4 to 8 °C (40 to 45 °F).

**Peace of Mind comes with dsm-firmenich enzymes**  
 dsm-firmenich enjoys the longest history in producing winemaking enzymes and commits to its reliability through its Quality for Life™ program. This commitment assures you that any dsm-firmenich ingredients you are buying is safe in terms of quality, reliability, reproducibility and traceability but also is manufactured in a safe and sustainable way.

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