

### ➤ CATALASES & Environmental Monitoring

**Hydrogen peroxide** vapor is routinely used in disinfection and sterilization of clean rooms and production facilities. It offers many advantages like its universal applicability, simple handling and virtually no residues. However, there are stringent requirements for a safe and effective method to ensure that no traces of  $H_2O_2$  are present ultimately interfering with the monitoring of the sterilization process.

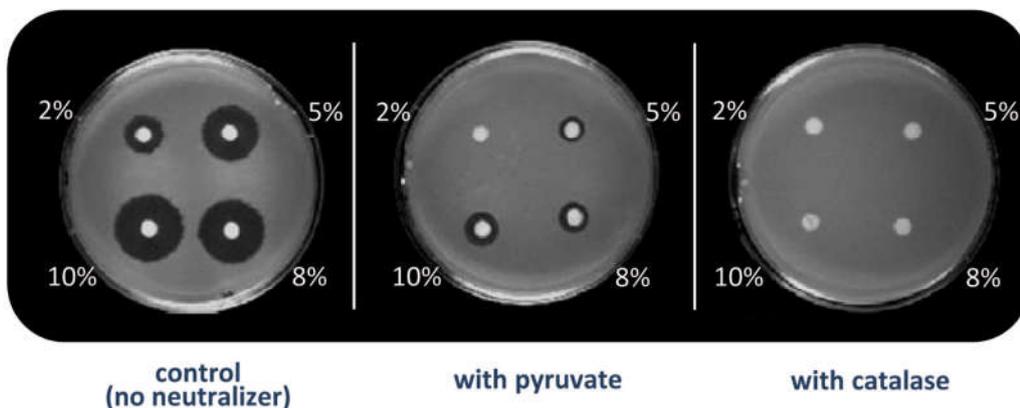
Currently, agar plates for monitoring the disinfection or sterilization are supplemented with pyruvate, which is however consumed during the neutralization of hydrogen peroxide. Therefore, pyruvate has difficulties in neutralizing higher concentrations and amounts of hydrogen peroxide.

**Catalase** as a supplement offers a more effective and reliable solution for safe and secure environmental monitoring of sterilization in clean rooms, isolators or production facilities by also removing remaining traces and spots of high concentration of  $H_2O_2$  when used in agar plates.

### ➤ A novel CATALASE for complete $H_2O_2$ neutralization in agar plates

- Easy to use formulation
- Complete biocatalytic inactivation of  $H_2O_2$
- Potent, stable alternative to chemical neutralizers, more reliable than pyruvate
- Secure and effective degradation up to 10%  $H_2O_2$
- Patent-protected in all important markets (EP2861715; US 9,951,306)

### ➤ Reliable and complete degradation of all applied $H_2O_2$ (2-10%)

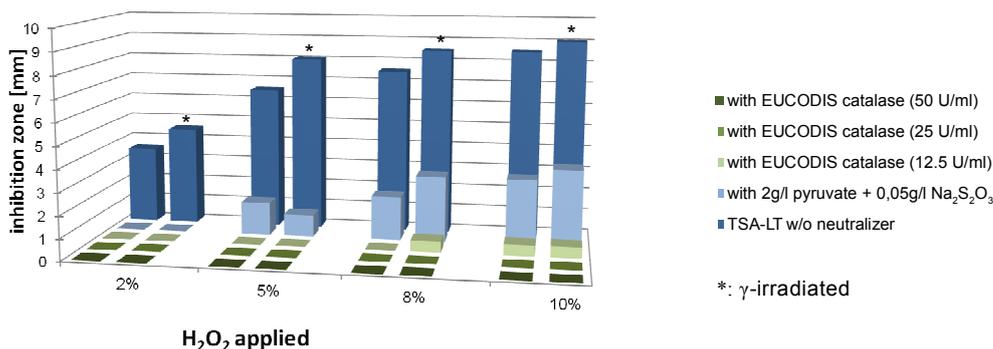


Agar diffusion test on TSA-LT agar inoculated with *B. subtilis*, filter disks with 10  $\mu$ L of 2%-10%  $H_2O_2$

## Enzyme profile

### Catalase adds additional safety to neutralizing plates

EUCODIS catalase is more effective than chemical neutralizers currently used in environmental monitoring agar plates, such as pyruvate.



EUCODIS catalase neutralizes hydrogen peroxide at much higher concentrations (>10 %) compared to pyruvate, which is only capable of completely neutralizing hydrogen peroxide at the lowest concentration tested (2 %).

## More benefits

### High stability in agar media

- Stability at 50°C, allows for easy preparation of media and processing into plates.
- Storage (> 6 months at 4/25°C), no special storage conditions required.
- Irradiation at 20-30 kGy possible, for sterilization of prepared media.

### Patent granted: EP2861715; US 9,951,306

## Product and OEM license offering

We are offering access to the patented technology to interested parties for collaboration in application development. Eucodis also offers ready-to-use media plates containing catalase for sterility monitoring and OEM supply of the enzyme for your environmental monitoring media or other applications.

## About us

**EUCODIS Bioscience** is an application-driven enzyme engineering and manufacturing company with a portfolio of over 50 enzymes including beta-lactamases, lipases, peroxidases and others used by customers in the pharmaceutical, biotechnology, diagnostics, and other industries. Our team works closely with our customers to better understand and meet their individual needs.

**EUCODIS Bioscience** also provides various custom protein & enzyme services according to ISO 9001 standards ranging from protein & enzyme engineering, bioprocess development to routine protein manufacturing.

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