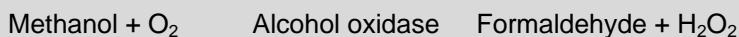


E2081204D1 – Alcohol Oxidase



PRODUCT APPLICATION

Alcohol oxidase has been successfully used in desktop alcohol detection instrumentation and detection of alcohol during fermentation.

Also used in disposable test strips for alcohol detection in saliva, blood, urine, milk and in the construction of disposable electrochemical biosensors.

PRODUCT BENEFITS

Good enzyme activity.
Substrate specificity for both methanol and ethanol.

STABILITY DATA

Enzyme stable for 6 months at 37°C.

STABILISER INFORMATION

This enzyme has been stabilised using our Q2091202D1 stabiliser solution. The solution is delivered in double strength to be added to the unstabilised enzyme E2040608P1 in buffer.

For more information on our range of stabiliser solutions please contact our sales representative.

PHYSICAL PROPERTIES

Alcohol Oxidase	EC:1.1.3.13
Source	Pichia pastoris
Appearance	Dry cream powder
Form supplied	Dry stabilised powder
Activity	> 2.0 units per mg material
Molecular Mass ¹	675 kDa (gel filtration)
Isoelectric point ¹	7.5
pH stability ¹	pH 6.5-8.3
Quality Control	Activity determined by spectrophotometric assay
Storage	Storage at -20°C

Unit Definition	One unit is defined as the amount of enzyme utilising 1 µmole of methanol to formaldehyde per minute at pH 7.5 at 25°C.
Substrate specification: (Km in mM) ²	Methanol - 1.4 (O ₂ concentration 0.19mM) - 3.1 (O ₂ concentration 0.93mM) Ethanol - 1.0

¹ Van der Klei, I.J., et al., Alcohol oxidase from Hansenula polymorpha CBS 4732. Methods Enzymol., 188, 420-27 (1990);

² Couderc, R., and Baratti, J., Oxidation of methanol by the yeast Pichia pastoris: purification and properties of alcohol oxidase. Agric. Biol. Chem., 44, 2279-89 (1980)

SAFETY AND HANDLING

Read the Material Safety Data Sheets (MSDS) and product labels before using the products.

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