



Laccase Trametes versicolor powder

CAS no. 80498-15-3

Specification

One unit corresponds to the amount of enzyme which converts 1 μ mol catechole per minute at pH 6.0 and 25 °C.

Reagents

- Citric acid, stock solution, prepared from:
- 1 M sodium hydroxide solution
- 1,2-Dihydroxybenzene
- Laccase

Solvents/Sample

A) 50 mM sodium citrate, pH 6.0, 50 mL:

Add 2.5 mL 1 M citric acid stock solution (27487, MW 192.43) to 40 mL H₂O, adjust pH to 6.0 with 1 M NaOH and bring to 50 mL.

B) Substrate, 25 mL:

Dissolve 275 mg 1,2-dihydroxybenzene (135011) in 25 mL buffer A.

C) Enzyme sample, ~ 0.8 U/mL:

Dissolve the laccase in cold buffer A and dilute.

Method/Procedure

Wavelength:	415 nm	Cuvettes:	1 mL polystyrene
Reaction volume:	1.050 mL	Temperature:	25 °C
Reaction time:	10 min	pH:	6.0



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

Pipet the following (mL) into cuvettes:

	Sample	Blank
Substrate B	1.0	1.0
Buffer A	—	0.05

Adjust temperature to 25 °C. Start by addition of:

Then add:

Enzyme C	0.05	—
----------	------	---

Mix and measure for 10 minutes at 25 °C.

Calculation

The maximum linear rate (Abs/min) is entered into the calculation:

$$\text{Volumetric Activity (U/mL)} = (\text{Abs/min} \times V_{\text{tot}} \times F) / (1 \times d \times v_{\text{pr}})$$

$$\text{Specific Activity (U/mg)} = \text{volumetric activity} / \text{konz}_{\text{Pr}}$$

$$\text{Abs/min} = \text{Abs/min (sample)} - \text{Abs/min (blank)}$$

V_{tot} total volume of the assay (mL)

F dilution factor

1 absorption coefficient (1 cm²/μmol at 415 nm)

d path length of the cuvette (1 cm)

v_{Pr} volume of the enzyme sample (mL)

konz_{Pr} concentration of the enzyme sample added (mg/mL)