

Laccase A

Benzenediol: oxygen oxidoreductase, EC 1.10.3.2

Description: Enzyme preparation which oxidised monovalent and polyvalent phenolic compounds. It catalyses reactions to products similar like humic substances under less oxygenic conditions. Basically Laccase A oxidises ortho- and para-diphenoles into the corresponding chinones and phenoxyradicals which polymerises spontaneously and are precipitated in the solution.

Origin: *Agaricus bisporus*

Application:

- precipitation of phenolic substances
- enzymatic browning of food (cacao, coffee)
- glueing of flake boards
- modification of elasticity and consistency of pastes, gums, dispersion media, phenolic resins
- production of microbiocides
- analysis of phenols

Activity: > 4.000 U/g (method: ASA Spezialenzyme GmbH)

Specific activity: > 45 U/mg

Substratespezifity: Laccase A converts a lot of substrates, for instance brencatechine, 2,6-dimethoxyphenol and syringaldazin.

Substrate	Relative activity [%]
p-phenylendiamine	100
N,N-dimethyl-p-phenylendiamine	94
guiacol	72
pyrogallol	62
1-naphtol	60
catechine	26
ascorbin acid	16
phloroglucinol	8

