

Cutinase 2P

EC 3.1.1.74

Description: Enzyme preparation for the hydrolysis of cutin and other esters. Cutin (polyester of hydroxy and hydroxy-epoxy fatty acid) is cleaved into the corresponding monomers.

Application: Splitting of cutin; organic synthesis (Tab. 1)

Origin: *Arxula adenivorans*

Aktivität: 20.000 U/g (pH 7,0; 37°C; Glycerintributyrat as substrate)

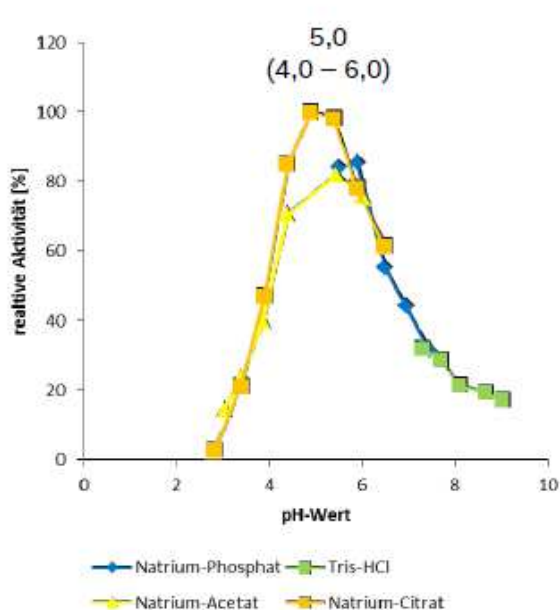
Reaction parameters: pH optimum: 4 - 6 active in the area pH 3,5 - 8
Temperature optimum: 20 - 40°C active in the area 5 - 60°C

Order-No.: 2465

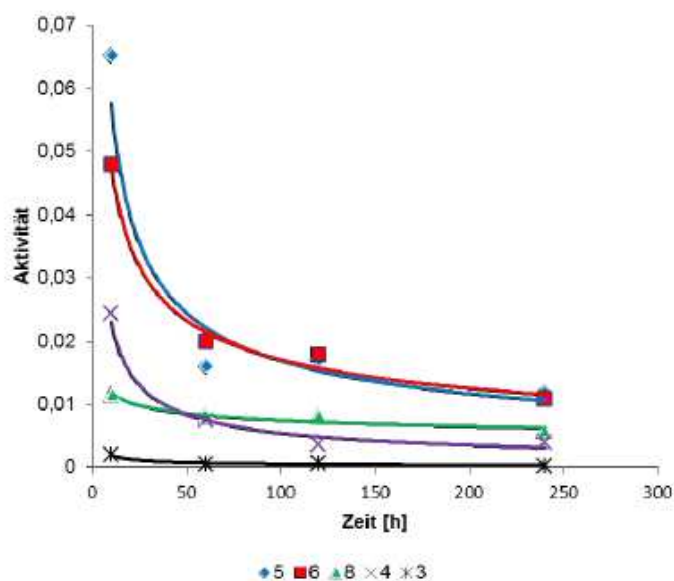
Packaging: partially purified lyophilisate

Storage: at -20°C

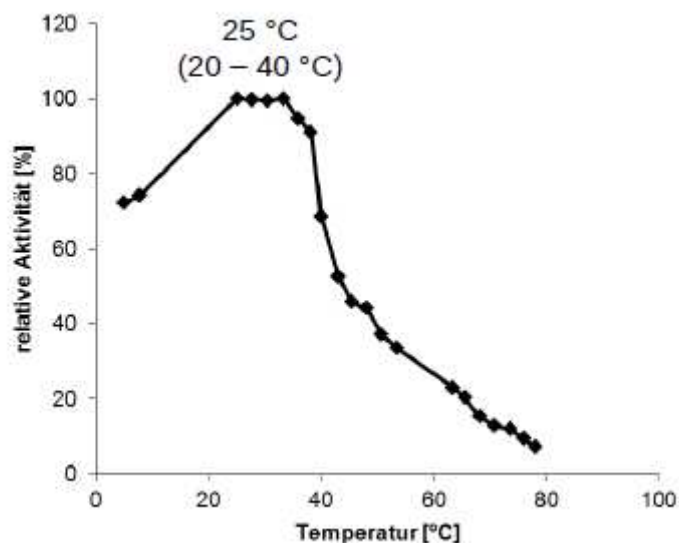
Stability: 12 months under the above stated conditions



III. 1: pH dependence of cutinase 2P



III. 2: pH stability of cutinase 2P



III. 3: Temperature dependence of cutinase 2P

Tab. 1: Use of cutinases in bio catalysis (due to Carvalho et al., 1998b)			
Reaction	Substrate	Enzyme preparations/ reaction	Reference.
Hydrolysis	triolein	Reverse Micelles AOT/ isooctane	Melo et al., 1995b
		triolein/ water	Flipsen et al., 1996
	tricaprylin	Immobilization on zeolites	Gonçalves et al., 1996a
		Calcium alginate	Gonçalves et al., 1995
		Covalent bonding on porous silicate	Gonçalves et al., 1996b
	p-nitrophenyl valerate	Micelles with SDS/ Triton X100	Pocalyko and Tallman, 1998
p-nitrophenyl palmitate	Immobilization on dextran and silica-derivatives	Gonçalves et al., 1998a	
	Methyl-,ethyl-, Propyl propionate	Gas/ solid phase system	Lamare et al., 1997
Ester synthesis	oleic acid + hexanol	Reverse micelles AOT/ isooctane	Sebastião et al., 1993, Sebastião et al., 1992
	caprylic acid + butanol	Organic solvents	Sarazin et al., 1992, Sarazin et al., 1995
	caprylic acid + butanol	Organic solvents	Sarazin et al., 1992, Sarazin et al., 1995
	butanoic acid + 2-butanol	Phosphatidylcholine/ isooctane, reverse micelles	Pinto-Sousa et al., 1994
	oleic acid + glycerin	Organic solvents	Melo et al., 1995a

	hexanoic acid + hexanol	CTAB, Reverse micelles	Cunnah et al., 1996
		Immobilization on Accurel EP 100	Sereti et al., 1997
	butanoic acid + hexanol	Immobilization on Accurel EP 100	Sjursnes et al., 1998
	lauric acid + pentanol	Reverse micelles AOT/ isooctane	Papadimitriou et al., 1996
Transesterification	methyl propionate + propanol	Gas/ solid phase system	Lamare and Legoy, 1995, Lamare et al., 1997
	butyl acetate + hexanol	Reverse micelles AOT/ isooctane	Carvalho et.al 1997a, Carvalho et al., 1998a
		Reverse micelles CTAB/ isooctane	Cunnah et al., 1996
		Immobilization on zeolites	Serralha et al., 1998

Literature

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