evocatal

evozymes® Product Information

evozyme 1.4.010

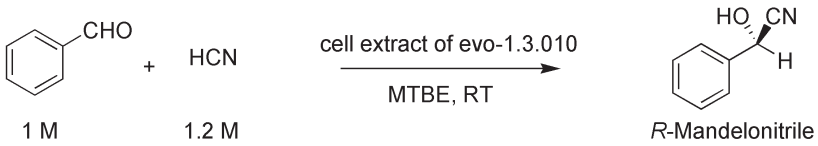
¬ (*R*)-selective Hydroxynitrile Lyase from *A.thaliana*

Enzyme Description

This Hydroxynitrile Lyase from *Arabidopsis thaliana* is hightly selective towards the (*R*)-enantiomer of its substrates. It shows highest activity agains a wide variety of substrates, especially in non-aqueous media. The enzyme is recombinantly expressed from *E. coli* and available in all quantities on demand.

Properties	
Activity	>150 U/mL
pH-Opt.	7,5–8,0
Temp. °C -Opt.	35°C
Formulation	cell extract, stable at -20°C

Process Example: Synthesis of enantiopure Mandelonitrile



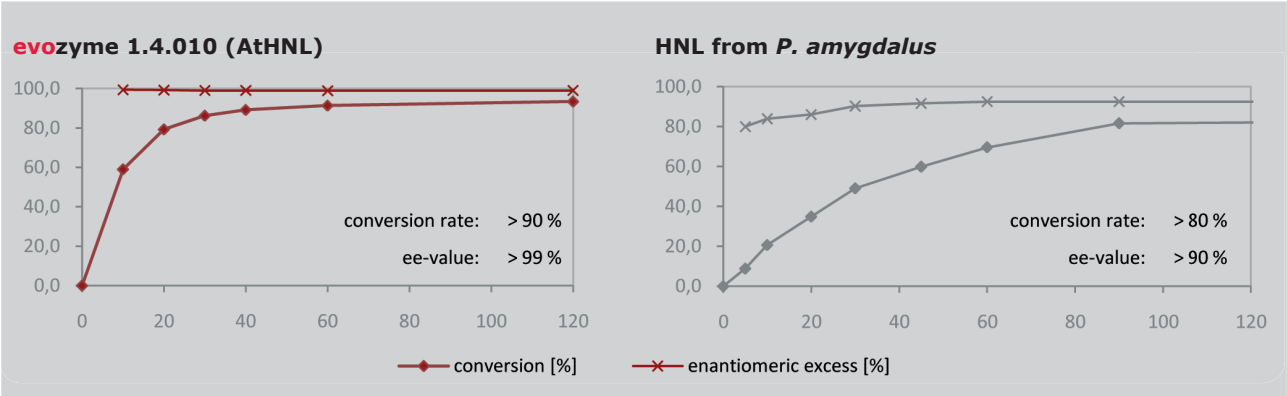
200 U 110,00 €

1 kU 275,00 €

For larger quantities please inquire.

Performance of evozyme 1.4.010

HNL from *A. thaliana* compared to HNL from *P. amygdalus* (almonds) in the conversion of Benzyaldehyde to (*R*)-Mandelonitrile



For further information and ordering please contact us.

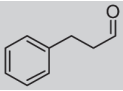
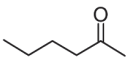
¬ evocatal fon + 49 (0) 211 157 60 95-0 fax -95-9 info@evocatal.com

evocatal

evozyme 1.4.010

¬ (*R*)-selective Hydroxynitrile Lyase from *A.thaliana*

Substrate Spectrum of evozyme 1.4.010

Substrate	Structure	Reaction Time[h]	Conversion [%]	% ee
Benzaldehyde-Derivatives		0,8	> 90	99.9
Benzaldehyde	R=H-	2	> 99.9	> 99.9
2-Chloro-benzaldehyde	R=2-Cl-	2	> 99.9	99.3
2-Fluoro-benzaldehyde	R=2-F-	2	> 99.9	98.9
2-Bromo-benzaldehyde	R=2-Br-	6	99	98
3-Fluoro-benzaldehyde	R=3-F-	2	> 99.9	99.5
3-Bromo-benzaldehyde	R=3-Br-	6	99	95
3-Phenoxy-benzaldehyde	R=3-Phenoxy	22	82.8	> 95
4-Chloro-benzaldehyde	R=4-Cl-	2	> 99.9	99.5
4-Fluoro-benzaldehyde	R=4-F-	2	> 99.9	99.6
Phenyl-acetaldehyde		22	97	95.9
Hydro-cinnamaldehyde		22	99	68
2-Hexanone		6	48	95
2'-Fluoro-acetophenone		22	8	95

References: Andexer et al. (2007), Angew. Chem Int. Ed. 46: 8679-8691.

evocatal GmbH
Merowingerplatz 1a
D-40225 Düsseldorf

fon +49 (0) 211 157 60 95-0
fax +49 (0) 211 157 60 95-9

info@evocatal.com
www.evocatal.com