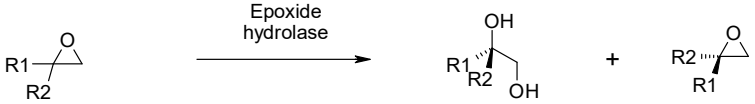
Epoxide Hydrolases SEQENZYM kit

Technical Data Sheet

GENERAL INFORMATION

The SEQENZYM™ - Epoxide Hydrolases Kit contains 4 epoxide hydrolases that have been selected for their selectivity and for their wide range of potential substrates.

Epoxide hydrolases catalyse the opening of oxirane rings by water, generating vicinals diols as products. When the starting epoxide is racemic, the epoxide hydrolase can selectively recognize one of the two enantiomers of the substrate allowing the kinetic resolution of the racemic mixture. Note that different substitution patterns could be tolerated and therefore different regioselectivity could be observed.



KIT DESCRIPTION

The kit contains 4 epoxide hydrolases as cell-free extracts for R&D use only (E3897, E3898, E4420 and E4421, 50 mg each). The screening kit contains sufficient enzyme amount to perform 5 assays per enzyme at 1 mL scale. Buffer salts and DMSO are not provided; for buffer preparation, see “ADDITIONAL INFORMATION”.

SCREENING PROCEDURE FOR EPOXIDE HYDROLASES

The following conditions are test conditions that can be optimized during further development steps – **Contact us for more details.**

1. Stock solutions preparation for a full screen (assessment of the 4 epoxide hydrolases):

	Stock solutions		Volume to add for each assay	Additional info
	Amount	Dissolve in		
Substrate	0.10 mmol	250 µL of DMSO	50 µL	
Epoxide hydrolase	10 mg	950 µL of 100 mM sodium phosphate pH 7	950 µL	Homogeneize well with pipet*

* : Take care to well suspend the cell-free extracts to get an homogeneous suspension. Do not sonicate.

2. In a vial, mix 950 µL of the suspension of epoxide hydrolase with 50 µL of the solution of substrate.

70, allée Graham Bell - Parc Georges Besse - 30035 Nîmes cedex 1 - France - Tél.: +33(0)466 70 64 64 - Fax +33(0)466 70 64 60 - seqensrdnimesinfo@seqens.com - www.proteus.seqens.com

Protéus, SA - Société anonyme au capital de €187.471,35 - RCS Evry B 418 623 138 - SIRET 418 623 138 00041 - APE 7211Z - N° TVA : FR47418623138

Siège social/headquarter: 21, chemin de la sauvegarde – 21 Ecully Parc – CS 33167 - 69134 ECULLY Cedex - FRANCE

3. Heat the reaction mixture at 30 °C under magnetic agitation.

4. Monitor the reaction over time by any preferred method to determine the conversion and the enantiomeric excess.

STORAGE

Recommended storage temperature for the enzyme is -20 °C.

Prepare freshly enzyme suspensions before use.

ADDITIONAL INFORMATION

Preparation of 100 mM sodium phosphate pH 7 buffer:

Mix 819 mg of Na_2HPO_4 and 508 mg of NaH_2PO_4, dissolve in H_2O and complete to 100 mL.

AFTER YOUR FIRST TRIALS,

Protéus by Seqens is available for any discussion concerning your results and further steps. Contact us if you need:

- Enlarge your screening with additional enzymes from our exclusive collection
- Larger enzyme quantities for your trials and scale-up
- Performance optimization on your chemistry: parameters of enzyme use

Protéus-by-Seqens has powerful tools to improve the enzyme performance and activity: our expertise is the fine-tuning of biocatalysts by directed evolution using Protéus-by-Seqens proprietary methodology (Evosight™ or L-Shuffling™) **– Contact us for more details.**

Keep in mind that Protéus by Seqens is dedicated to the development of biocatalyzed reactions and offers industrial scale-up capabilities within CDMO facilities – **Contact us for a quote.**

CONTACT

+33(0)466 70 64 64

http://www.proteus.seqens.com

seqenzym@seqens.com