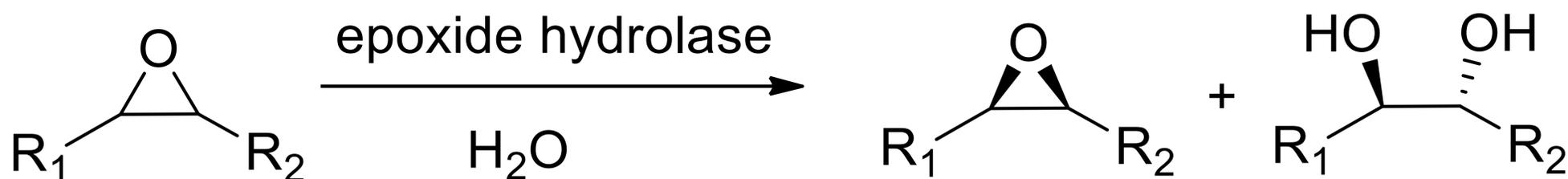


Applications

Resolution of racemic epoxides by selective ring opening in aqueous media resulting in optically active *anti* diols and epoxides.



Kit description

The kit contains 12 epoxide hydrolase biocatalysts, as well as pre-prepared phosphate buffer for selective ring opening of an epoxide.

EHS contained in this kit

EH-101	EH-143	EH-150
EH-103	EH-144	EH-151
EH-104	EH-145	
EH-105	EH-147	
EH-133	EH-148	

Contents

Epoxide hydrolase enzymes 12 vials lyophilised powder (50 mg each)
0.1 M KH₂PO₄ buffer (pH 7.0) 1 bottle (100 mL)

Screening Procedure

1. Into a flask/vial, add 10 mg epoxide hydrolase.
2. Add 1 mL buffer to each vial.
3. Add 5 mg of substrate in appropriate co-solvent.
4. Allow reaction to shake at 25°C for 8-16 hours.
5. Monitor reaction as required (TLC/HPLC etc.).
6. Extract with a suitable water-immiscible organic solvent (1 mL).
7. Analyse sample by GC or HPLC to determine conversion and ee.

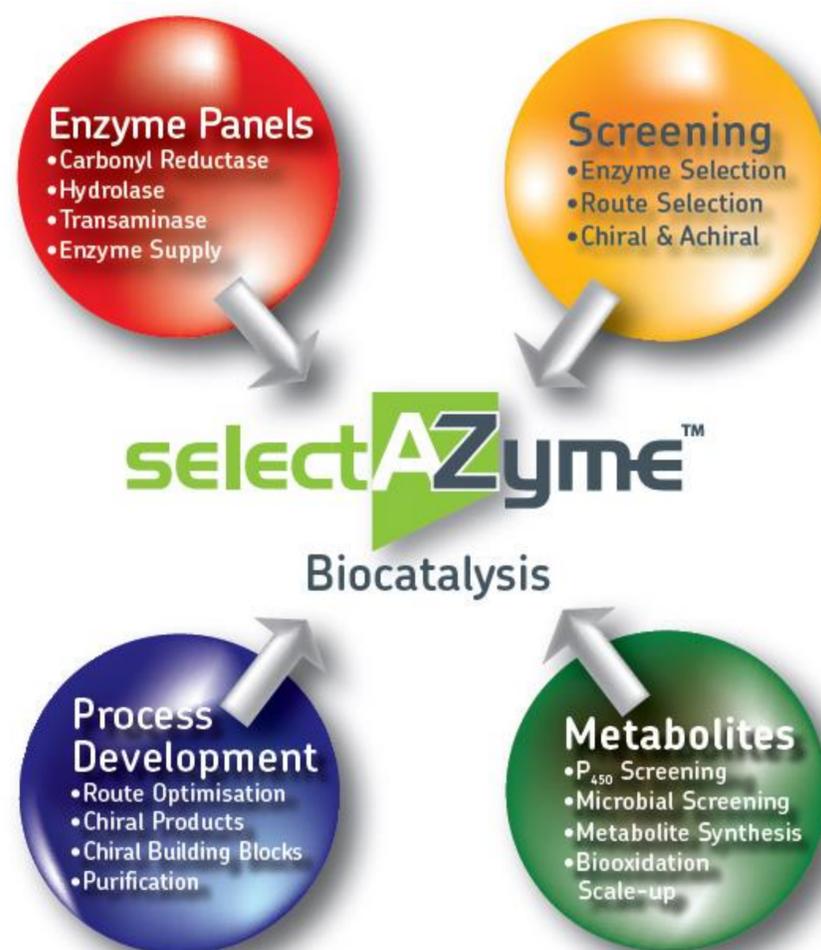
A sufficient supply of all contents has been provided for 5 screens with each enzyme. Additional components are available for purchase from Almac.

Storage: The epoxide hydrolase enzyme screening kit should be stored in a refrigerator at <4 °C to preserve activity.

Epoxide Hydrolase Enzyme Screening Kit EHESK-1200 (50 mg)

selectAZyme Offerings

- An ever-expanding biocatalysis team including molecular and microbiologists, enzymologists, bioinformaticians, organic chemists and analysts, all equipped with state-of-the art facilities.
- Expertise in gene identification, expression, fermentation and enzyme production, followed by the efficient use of enzymes to produce complex chiral APIs.
- Enzyme evolution based on computational re-design, semi-rational and random mutagenesis approaches, allowing access to bespoke biocatalysts with enhanced activity, selectivity and process robustness.
- Fully integrated biocatalyst development through screening, (chemo-) enzymatic route definition, process development and scale up (pilot plant facilities available).
- Rapid implementation of enzymatic steps in complex, multi-stage syntheses, leading to significant improvements in production yields and timelines.
- A simple business model that avoids IP issues.



The selectAZyme Range of Enzyme Screening Kits

Our selectAZyme kits include a detailed user guide and come with all buffers, cofactors, recycling systems and reagents necessary to perform screens using standard laboratory equipment.

Carbonyl Reductase (CRED) biocatalysts

96 CRED biocatalysts for the production of chiral alcohols and/or use in cofactor recycling schemes

Aldehyde Reductase (ARED) biocatalysts

16 ARED biocatalysts

Hydrolase biocatalysts

48 commercially available hydrolases for selective acylation of alcohols and amines.

Nitrilase and Nitrile Hydratase (NHase) biocatalysts

9 NHases and 15 nitrilases

Transaminase (TAm) biocatalysts

96 TAm for the production of chiral amines from pro-chiral ketones.

Ene Reductase (ERED) biocatalysts

143 ERED biocatalysts for asymmetric reduction of activated alkenes

P450 Monooxygenase biocatalysts

96 P450 monooxygenase biocatalysts for a huge range of highly selective oxidations

Want Almac to do the screening for you?

- Our experienced biocatalysis team can screen all of our enzymes against your target substrate(s) and simply provide the results.
- Flexible options for subsequent enzyme supply, evolution services, process development and scale up as required.

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