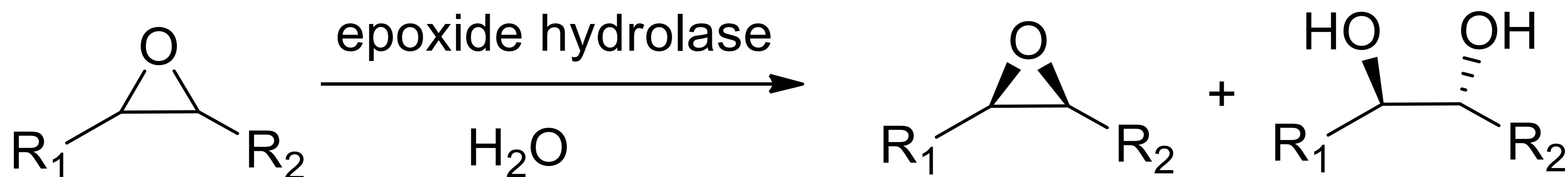


## Applications

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 KH<sub>2</sub>PO<sub>4</sub> 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.

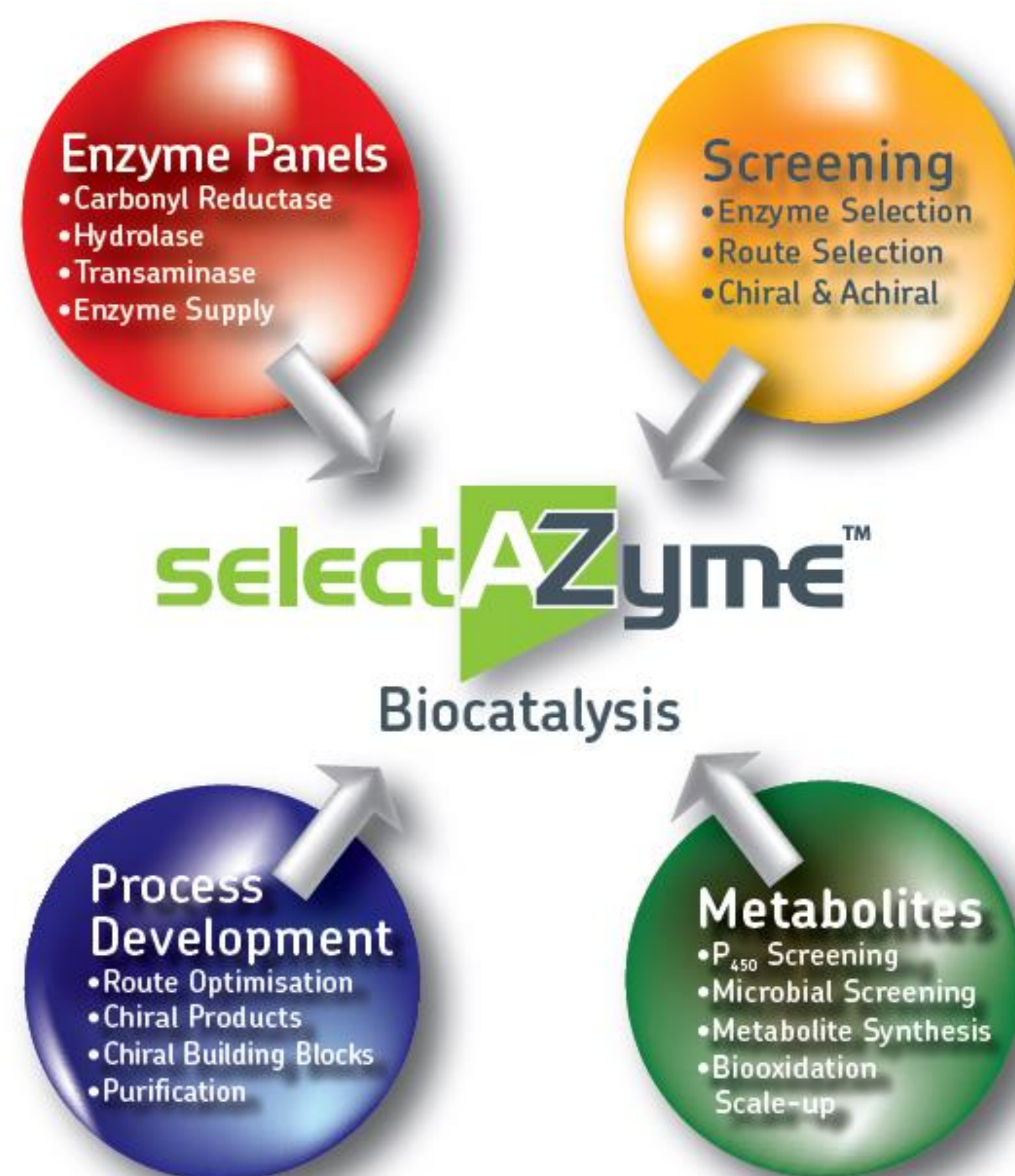
# Epoxide Hydrolase

## 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.

### Technical Contacts:

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