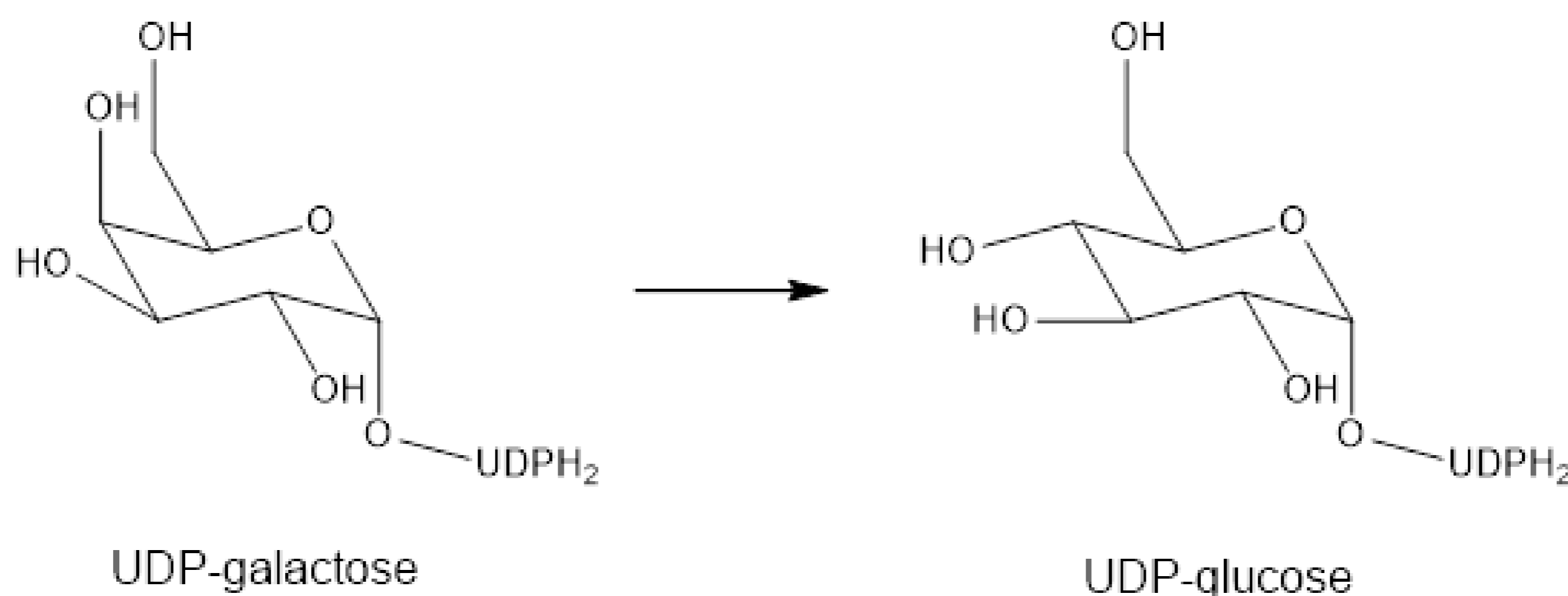


Applications

Epimerisation of UDP-galactose to UDP-glucose.



Kit description

The kit contains 12 diverse pre-formulated Epimerase (EPIM) catalysts as lyophilised powders, as well as pre-prepared Tris Buffer,

EPIMs contained in this kit

EPIM01	EPIM07
EPIM02	EPIM08
EPIM03	EPIM09
EPIM04	EPIM10
EPIM05	EPIM11
EPIM06	EPIM12

Contents

EPIMs as lyophilised powder	12 Vials (50 mg)
10 mM TrisHCl (pH 8.0)	1 Bottle (60 mL)

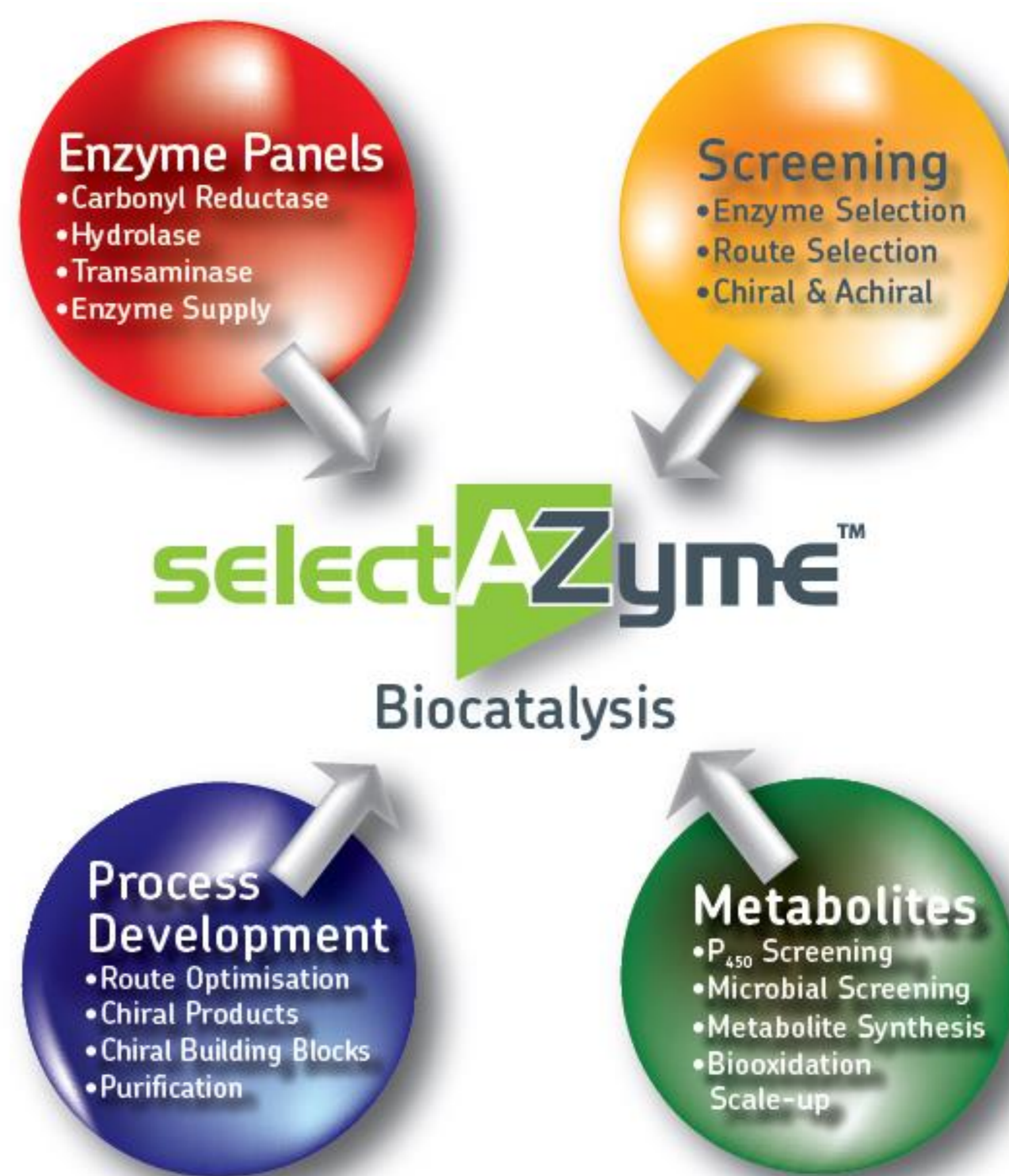
Screening Procedure

1. Label 12 x 1.5 mL tubes corresponding to the different EPIMs provided in the kit and add 10 mg of the corresponding enzyme.
2. Add 500 μ L buffer to each tube containing 10 mg AAL.
3. Add a solution of 5-10 mg substrate in buffer or appropriate water miscible solvent (eg: DMSO).
4. Shake at room temperature overnight.
5. Samples can be prepared for analysis by addition of 1 mL acetonitrile followed by centrifugation for analysis by reverse phase HPLC

Storage: Recommend refrigeration at 4°C to preserve enzyme activity.

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:

Prof. Tom Moody, Tel: +44 (0)28 3833 2200 Ext. 5517, E-mail: tom.moody@almacgroup.com.

Dr. Derek Quinn, Tel: +44 (0)28 3833 2200 Ext. 5833, E-mail: derek.quinn@almacgroup.com.

Address: Almac Biocatalysis & Isotope Chemistry Group,

20 Seagoe Industrial Estate, Craigavon BT63 5QD

Web: www.almacgroup.com,

Email: biocatalysis@almacgroup.com