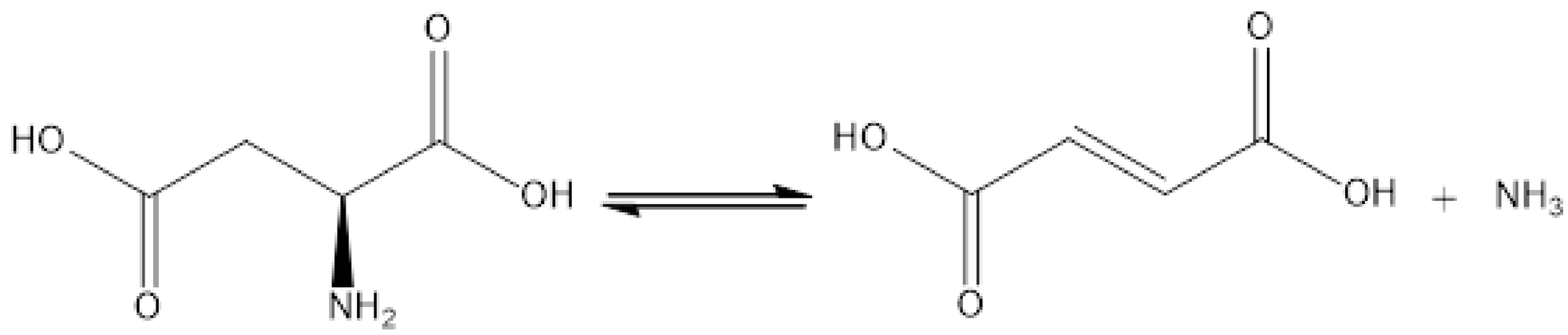
Aspartate ammonia lyase (AAL) Enzyme Screening Kit

AALESK-900 (50 mg)

Partnering to Advance Human Health

Applications

Reversible deamination of L-aspartate.



Kit description

The kit contains 9 diverse pre-formulated aspartate ammonia lyase catalysts as lyophilised powders, as well as pre-prepared NaH_2PO_4 Buffer and $MgCl_2$.

AALs contained in screening kit

AAL-001	AAL-006
AAL-002	AAL-007
AAL-003	AAL-008
AAL-004	AAL-009
AAL-005	

Contents

AALs as lyophilised powder	9 Vials (50 mg)
50 mM NaH_2PO_4 buffer, pH 8.5	1 Bottle (60 mL)
$MgCl_2$	1 vial (60mg)

Screening Procedure

1. Label 9 x 1.5 mL tubes corresponding to the different AALs provided in the kit and add 10 mg of the corresponding enzyme.
2. Dissolve 10mg $MgCl_2$ in 5mL buffer*.
3. Add 500 µL $MgCl_2$ solution to each tube containing 10 mg AAL.
4. Add a solution of 5-10 mg substrate in buffer or appropriate water miscible solvent (eg: DMSO).
5. Shake at room temperature overnight.
6. Samples can be prepared for analysis by addition of 1 mL acetonitrile followed by centrifugation for analysis by reverse phase HPLC

*It is recommended to make the reaction mix solution fresh and use immediately. Avoid storage of the reaction mix as a solution, as this will degrade over time. An adequate supply of $MgCl_2$ and buffer has been provided for 5 screens with each enzyme. Additional buffer or $MgCl_2$ can be purchased from Almac if required

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

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ALMAC

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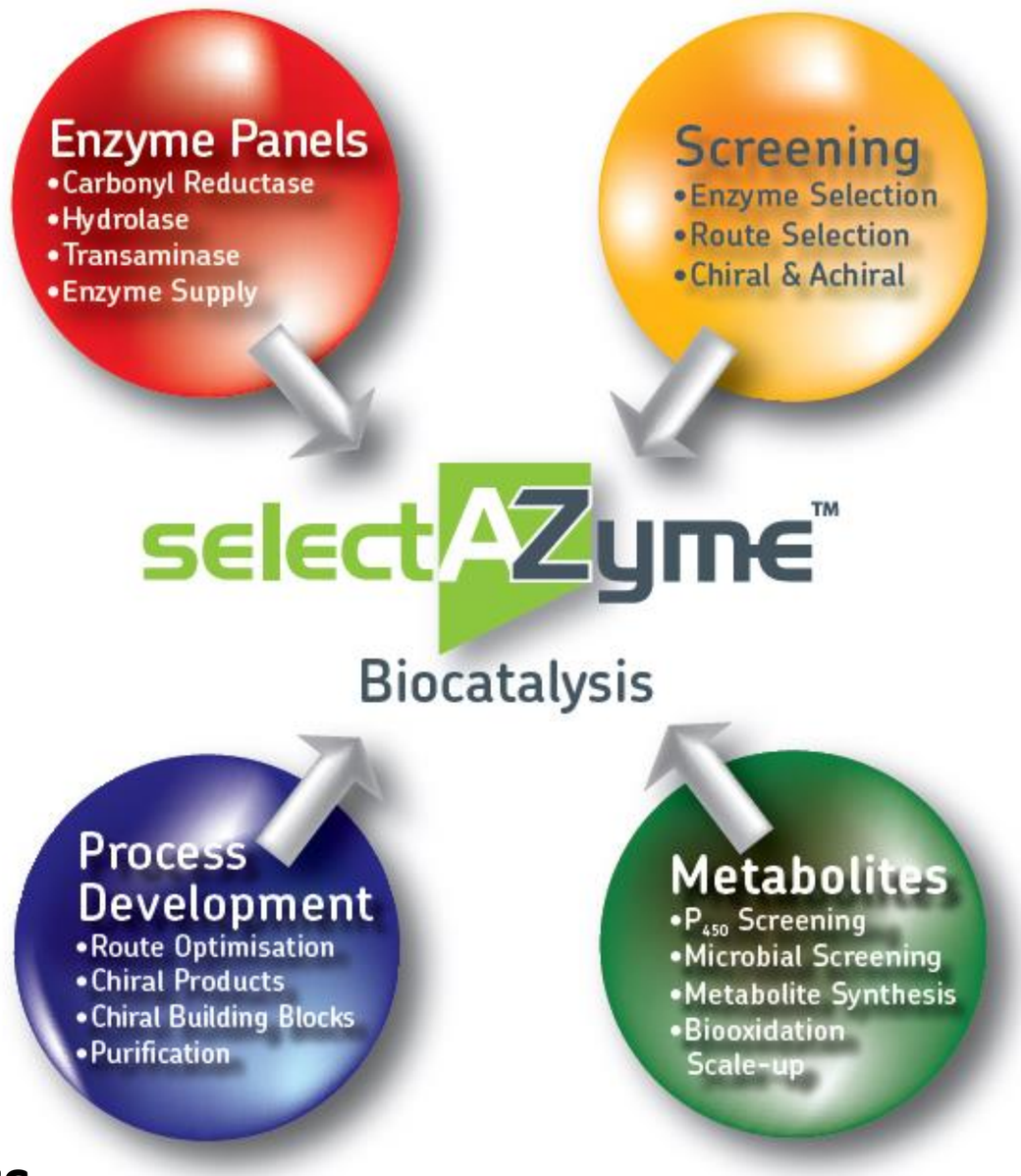
selectAZyme™

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 selectAZmye 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 TAms for the prodcution 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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