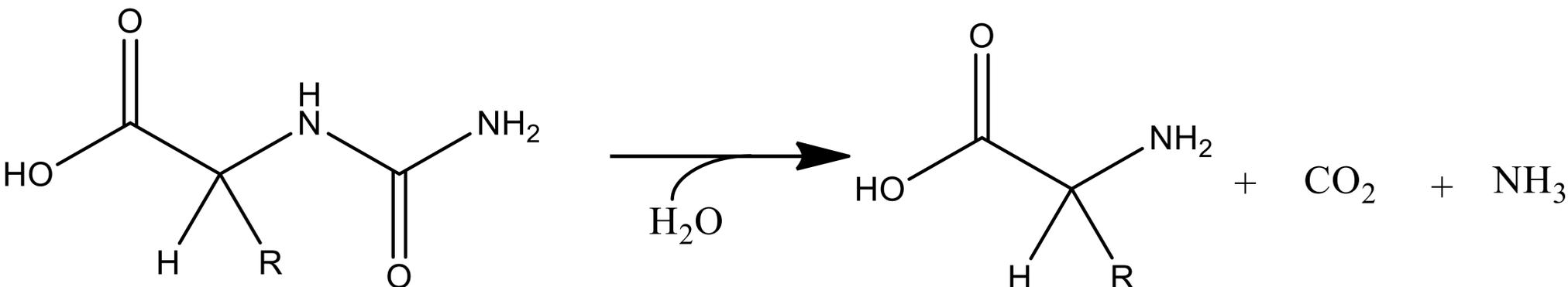


Applications

Transfer of a carbonyl group from a carbonyl phosphate donor to an amine group.



Kit description

The kit contains 5 carbamoyltransferase biocatalysts as lyophilised powders in bottle format, as well as pre-prepared Sodium phosphate buffer.

TCMLs contained in the screening kit: Contents

TCML-001
TCML-002
TCML-003
TCML-004
TCML-005

TCMLs
100mM Sodium phosphate buffer (pH 7)

5 enzymes (50 mg each)
1 bottle (15 mL)

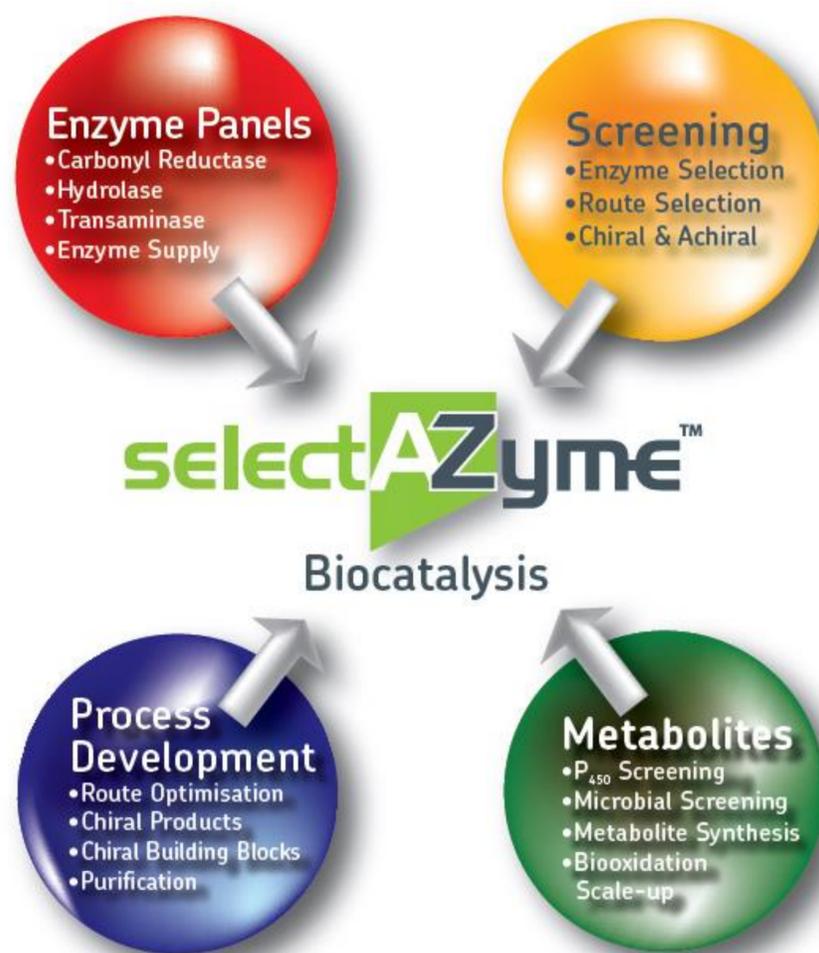
Screening Procedure

1. Label 5 x 1.5 mL tubes corresponding to the different TCMLs provided in the kit and add 10 mg of the corresponding enzyme.
2. Add 500 μ L buffer to each tube containing 10 mg TCML.
3. Add a solution of 5-10 mg substrate in buffer or appropriate water miscible solvent (eg: DMSO).
4. Shake at room temperature (or ideally 30 °C) overnight.
5. Extract product with an organic solvent (MTBE, EtOAc etc.).
6. Analyse sample by GC/HPLC to determine conversion.

Storage: The screening kit should be stored in a refrigerator 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 unique selectAZyme platform offers a range of enzymes suitable for carrying out a wide variety of chemical reactions. Our biocatalysts are prepared in easy to use kits for rapid customer evaluation without any IP issues. These include the following:

Carbonyl Reductase (CRED) biocatalysts

>300 CREDs for the production of chiral alcohols from pro-chiral ketones

Hydrolase biocatalysts

>100 hydrolases for selective hydrolysis in aqueous media, selective acylation in non-aqueous media, resolution of secondary alcohols, amines and thiols, formation of peptides

Nitrilase biocatalysts

>200 nitrilases for the synthesis of carboxylic acids by enzymatic hydrolysis of nitriles

Transaminase (TAm) biocatalysts

>200 TAmS for the production of chiral amines by asymmetric synthesis from pro-chiral ketones or resolution of racemic amines

Ene Reductase (ERED) biocatalysts

>200 EREDs for asymmetric reduction of activated alkenes

For the full range of enzyme screening kits on offer, please check the Almac website

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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