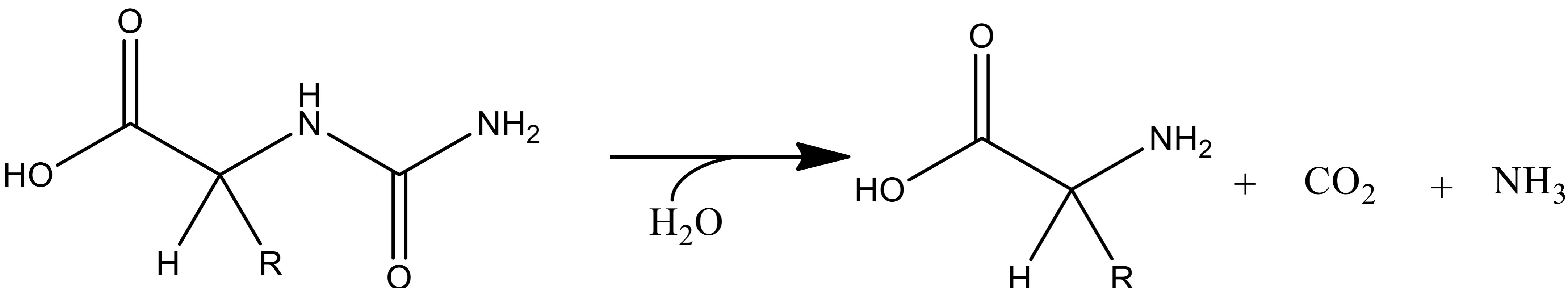


### Applications

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)

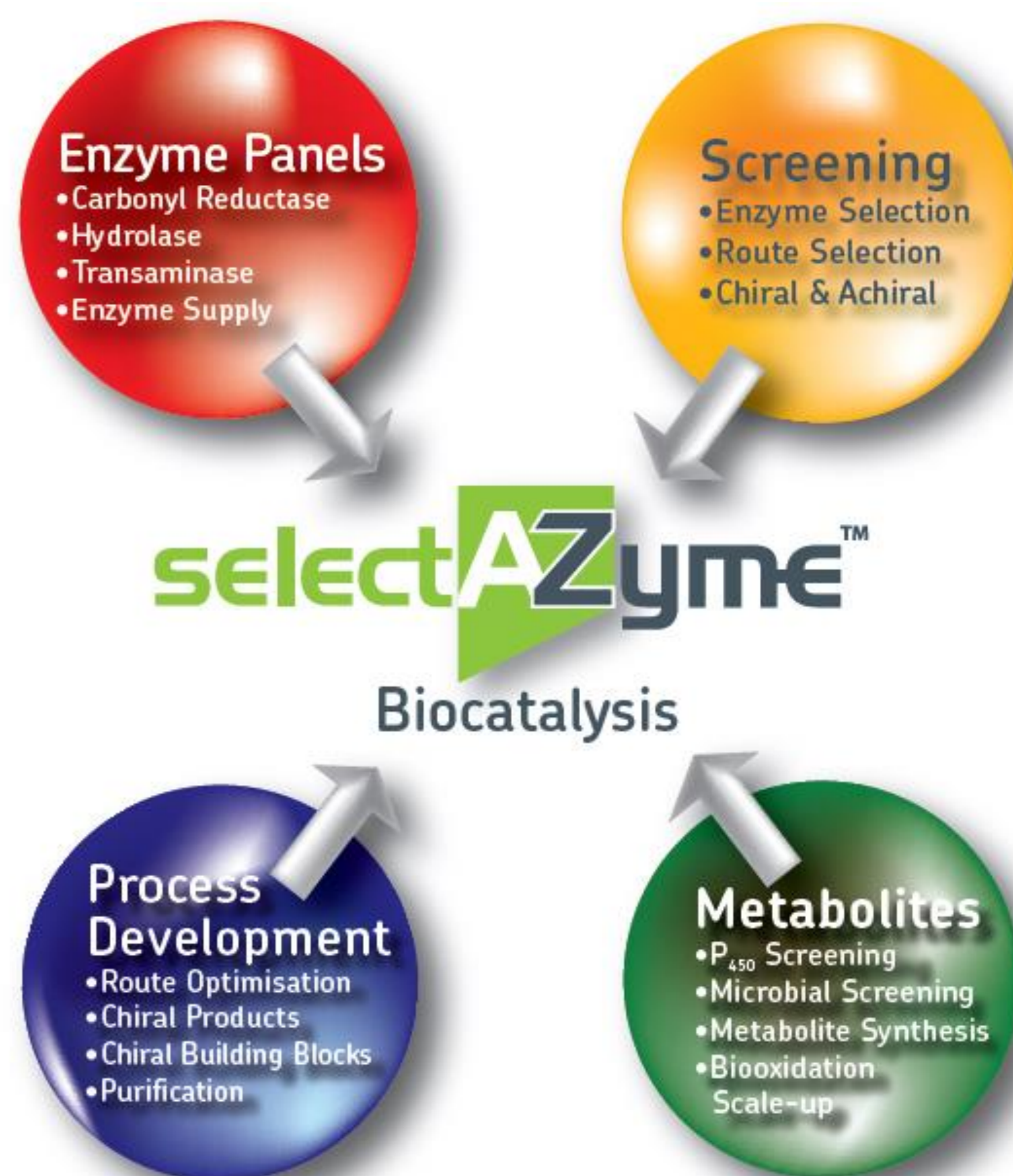
### Screening Procedure

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  $\mu$ 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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