

# Codex™ Acylase Panels

## Codex™ Acylase Panels

- Functionally diverse Acylase variants *demonstrated*:
  - to accept wide range of substrates
  - to be chemical process robust (stable to organics, thermo-stable)
  - to be manufactured at commercial scale
- Combinatorial design for sequence-function analysis
- Arrayed on 96-well plates for rapid screening

## Advantages to the Process Research Chemist

- Quickly determine feasibility of a biocatalytic route
- Reduce development timelines for biocatalyst optimization – competitive with chemical process optimization
- Available for in-house screening, or as service provided by Codexis
- Deliver low-cost, scalable, environmentally-friendly methods of chiral resolution

## Chiral Intermediates by Resolution

Enantiopure secondary alcohols and amines are important intermediates and products in the pharmaceutical industry. Methods for more economic, practical resolution of individual enantiomers from inexpensive racemic compounds remain of interest to the pharmaceutical chemical industry. Recent advances in developing enzymes for high activity and high stereo-selectivity are increasing the use of biocatalysts in the production of enantiomeric alcohols and amines from racemic mixtures.

## Codex™ Acylase Panels: Biocatalytic Solution to Chiral Resolution

Codex™ Acylases can be used to resolve chiral amines and alcohols from racemic mixtures. Acylases can stereo-selectively hydrolyze and/or synthesize amides and esters, generating chiral amines and alcohols. Codexis now offers a set of ~ 96 unique, proprietary acylases that are “pre-tuned” to produce amines and alcohols with different stereo-selectivities and to perform under process conditions suitable for pharmaceutical chemical manufacturing. Codex™ Acylase Panel biocatalysts function under a wide range of temperatures (20°C – 45°C) and high concentrations of solvents (for example, MeOH, EtOH, IPA, MTBE, ACN, THF).

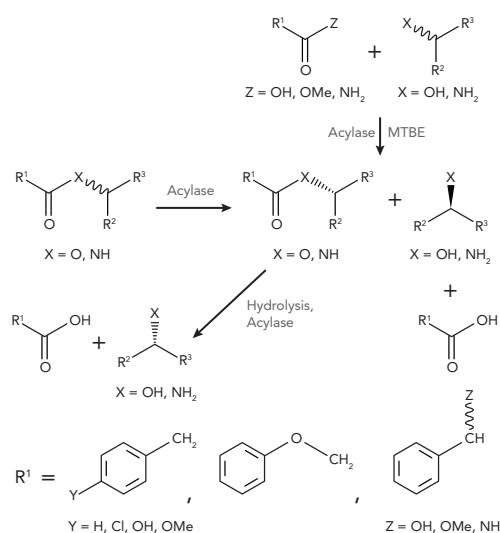


Figure 1 – Illustrates the chiral resolution of amines and alcohols by Codex™ Acylase Panel biocatalysts.