



碧云天生物技术/Beyotime Biotechnology  
订货热线: 400-168-3301或800-8283301  
订货e-mail: order@beyotime.com  
技术咨询: info@beyotime.com  
网址: http://www.beyotime.com

## Alanine Racemase (Crude Enzyme)

产品编号	产品名称	包装
P3807-100ml	Alanine Racemase (Crude Enzyme)	100ml
P3807-1L	Alanine Racemase (Crude Enzyme)	1L

### 产品简介:

- Alanine Racemase, 中文名为丙氨酸消旋酶, 催化L-丙氨酸与D-丙氨酸之间相互转化。本产品为大肠杆菌表达的丙氨酸消旋酶, 并经简单纯化获得的可以确保达到一定酶活力的粗酶液。
- 由于本产品需新鲜制备, 确认订购后约6个工作日才可以发货。个别情况首次制备出现问题, 发货时间会顺延。
- 本产品可以提供十公斤、百公斤乃至吨级的粗酶液, 如有需求请联系碧云天。
- This enzyme belongs to the family of isomerases, specifically those racemases and epimerases acting on amino acids and derivatives. This enzyme participates in alanine and aspartate metabolism and D-alanine metabolism. It employs one cofactor, pyridoxal phosphate. At least two compounds, 3-Fluoro-D-alanine and D-Cycloserine are known to inhibit this enzyme. The D-alanine produced by alanine racemase is used for peptidoglycan biosynthesis. Peptidoglycan is found in the cell walls of all bacteria, including many which are harmful to humans. The enzyme is absent in higher eukaryotes but found everywhere in prokaryotes, making alanine racemase a great target for antimicrobial drug development. Alanine racemase can be found in some invertebrates. Bacteria can have one (alr gene) or two alanine racemase genes. Bacterial species with two genes for alanine racemase have one that is continually expressed and one that is inducible, which makes it difficult to target both genes for drug studies. However, knockout studies have shown that without the alr gene being expressed, the bacteria would need an external source of D-alanine in order to survive. Therefore, the alr gene is a feasible target for antimicrobial drugs. This product with the indicated enzyme activity was briefly purified from engineered *E. coli*.
- 产品详细信息见下表:

About this product	
Name	Alanine Racemase (Crude Enzyme); 丙氨酸消旋酶(粗酶液)
Application	催化L-丙氨酸与D-丙氨酸之间相互转化
Appearance	Clear to translucent yellow solution
Enzyme activity	Undetermined
About this enzyme	
Name	Alanine Racemase; 丙氨酸消旋酶
CAS Number	9024-06-0
EC Number	5.1.1.1
Enzymatic Reaction	L-alanine = D-alanine
Synonyms	L-alanine racemase
Systematic name	alanine racemase
Cofactor(s)	pyridoxal 5'-phosphate
Application	drug development; pharmacology; medicine; pharmacology

### 包装清单:

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P3807-100ml	Alanine Racemase (Crude Enzyme)	100ml
P3807-1L	Alanine Racemase (Crude Enzyme)	1L
—	说明书	1份

### 保存条件:

-20°C或更低温度保存, 至少1个月有效。

### 注意事项:

- 由于本产品需新鲜制备, 在您确认订购后约6个工作日才能发货。个别情况首次制备出现问题, 发货时间会顺延。
- 粗酶液的每次冻融均可能会引起部分失活, 所以收到酶液后请根据需要进行分装, 并置于-20°C或更低温度保存。
- 随着保存时间的延长, 酶活力会有一定程度的下降, 收到产品后应尽快使用。

- 本产品在生产 and 保存的过程中可能会有混浊或沉淀产生，融化后混匀即可，不影响正常使用。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

#### 使用说明：

1. 收到产品后请立即使用或按照说明书推荐的条件保存。随着保存时间的延长，酶活力会有一定程度的下降。
2. 具体的最佳工作条件请自行参考相关文献，或者通过实验进行摸索和优化。

#### 相关产品：

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