

# N-ACETYL-L-ASPARTIC ACID

## PRODUCT IN FOCUS



## N-Acetyl-L-Aspartic Acid

### INTRODUCTION

N-Acetyl-L-aspartic acid, abbreviated as NAA, is second most abundant molecule in nervous systems after amino acid glutamate. It is synthesized in brain from aspartic acid and acetyl co-enzyme A. It also acts as nutrient.

### Manufacture

In a biological process, NAA is produced from rat brain acetone. Commercially, it is manufactured by acetylation of L-aspartic acid bis(trimethylsilyl)ester using acetyl chloride.

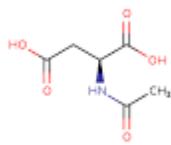
### Applications in Synthesis

The chiral acid is used to synthesize:

- ⓧ Its anhydride
- ⓧ Homoserine gamma-lactones

### Other Applications

- ⓧ As reagent in selective reductions of cyclic ketones
- ⓧ In acid-catalyzed cyclization reactions
- ⓧ In peptide synthesis
- ⓧ As a nutraceutical supplement in capsule, tablet, and liquid dosage form
- ⓧ As antioxidant
- ⓧ As human and rat metabolites
- ⓧ Isotopic form used in studies for metabolic alteration associated with schizophrenia

<b>Synonyms</b>	N-Acetyl aspartate NAA
<b>CAS no.</b>	997-55-7
<b>EINECS no.</b>	213-643-9
<b>Molecular formula</b>	$C_6H_9NO_5$
<b>Molecular weight</b>	175.14
<b>Structure</b>	



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### SPECIFICATIONS

Test	Unit	Specification
Appearance	-	White powder
Specific rotation (C = 1, HAc)	Degree	50.0 – 54.0
Water	%	Max 0.5
Assay	%	Min 98.0

### STORAGE

The product is stored at ambient temperature.

### PACKING

25 kg Fibre drum.

### REACH Status

Not Registered yet.

ExSyn offers N-acetyl-L-aspartic acid on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.