



L-Hydroxyproline

Evonik. Power to create.



L-Hydroxyproline

Your key component in development and manufacturing of active pharmaceutical ingredients (APIs).

In the past L-Hydroxyproline was isolated by hydrolysis of animal collagen, e. g. gelatine or collagen, of which it is a major constituent. L-Hydroxyproline is an unnatural amino acid which is made in the body by hydroxylation of L-Proline. The presence of L-Hydroxyproline and proline are key to maintaining the stability of the tight collagen helix.

Today L-Hydroxyproline is manufactured by bio-catalysed hydroxylation of proline in bacteria. Together with its other isomers, L-Hydroxyproline is also used as an intermediate for a range of pharmaceutical active ingredients.



Evonik's unique portfolio

Our unique setup in biotechnology and chemical synthesis enables us to offer all L-Hydroxyproline derived building blocks and the entire L-Hydroxyproline platform.

Evonik's L-Hydroxyproline is manufactured by fermentation and is non-animal sourced.

Since L-Hydroxyproline derivatives are incorporated into the structure of the API, the purity of L-Hydroxyproline derivatives is critical. Evonik's L-Hydroxyproline and derivatives are greater than 99% pure. You can rely on our consistent quality.

Evonik has continuously and consistently refined its amino acid product offering. Our entire manufacturing process is backward integrated for the highest level of supply security. Our technological

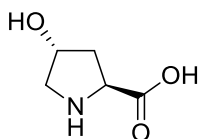
platform enables us to translate expertise into large-scale production of L-Hydroxyproline derivatives. Evonik also has novel intellectual property for the synthesis of N-Boc-4-oxo-L-proline.

Evonik can supply L-Hydroxyproline for your APIs in development and then grow with you to commercial scale.

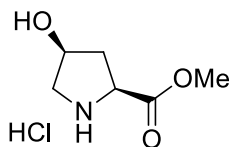
L-Hydroxyproline derivatives are used as building blocks for API synthesis. These APIs are designed to treat conditions as varied as Diabetes, High Blood Pressure, and antivirals for Hepatitis C.



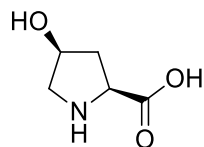
Portfolio of L-Hydroxyproline derivatives



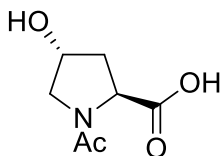
trans-hydroxy-L-proline
CAS: 51-35-4



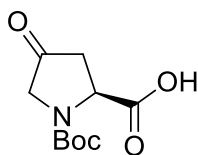
cis-4-hydroxy-L-proline methyl
ester hydrochloride
CAS: 40126-30-5



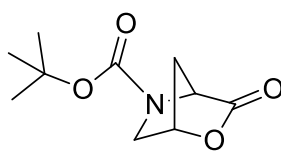
cis-hydroxy-L-proline
CAS: 618-27-9



N-acetyl-L-hydroxyproline
CAS: 33996-33-7



N-Boc-4-oxo-L-proline
CAS: 84348-37-8



N-Boc-hydroxy-L-pyrrolidine
lactone
CAS: 113775-22-7

API examples for use of L-Hydroxyproline	Indication
Asunaprevir	Hepatitis C
Ertapenem	Antibacterial
Fosinopril	ACE Inhibitor
Icatibant	Angioedema
Meropenem	Antibacterial
Teneligliptin	Antidiabetic

Evonik's L-Hydroxyproline at a glance

- Non-animal sourced
- Purity of L-Hydroxyproline and derivatives
- Greater than 99% purity
- Backward integration
- Large-scale production
- Reliable partner for consistent quality and supply
- BSE/TSE free

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