



L-Histidine free base

Catalog No: 11630
Lot No: XXXXX
Cas No: 71-00-1
Formula: C₆H₉N₃O₂
MW: 155.16
Supplied as: solid
Stability: stable at RT

Background

Histidine, also referred to as L-histidine, is an essential amino acid that is not synthesized de novo in humans. Humans and other animals must ingest histidine or histidine-containing proteins. The biosynthesis of histidine has been widely studied in prokaryotes such as *E. coli*. Histidine synthesis in *E. coli* involves eight gene products (His1, 2, 3, 4, 5, 6, 7, and 8) and it occurs in ten steps. This is possible because a single gene product has the ability to catalyze more than one reaction. Histidine is one of the amino acids that can be converted to intermediates of the tricarboxylic acid (TCA) cycle. Histidine, along with other amino acids such as proline and arginine, takes part in deamination, a process in which its amino group is removed.

Tests

Appearance:

Assay (acidimetric, calc. on dried substance):

Assay (perchloric acid titration, calc. on dried substance)

Identity (IR-spectrum)

Appearance of solution (50 g/l; water)

Appearance of solution (20 g/l, water)

pH (20 g/l, CO₂-free water)

Loss on drying

Bacterial endotoxins

Specifications

white to almost white fine-crystalline powder or colorless crystals

98.5 - 101.0%

99.0 - 101.0%

passes test

clear and not more intense in color than reference solution BY₇.

clear and colorless

7.0 - 8.5

≤ 0.2%

< 2.0

Usage

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