Grand Vertex Trading (GVT)
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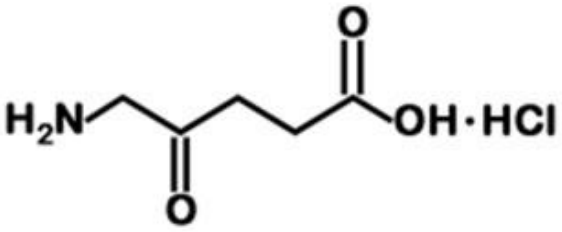
Product Information

5-Aminolevulinic acid hydrochloride

CAS RN: 5451-09-2
Synonyms: δ-Aminolevulinic acid hydrochloride; 5-Aminolevulinate hydrochloride; 5-Amino-4-oxopentanoic acid hydrochloride

Product Description



Molecular formula: $C_5H_9NO_3 \cdot HCl$
Molecular weight: 167.59
Melting Point: 151-155 °C

5-Aminolevulinic acid (ALA) is the universal precursor of tetrapyrroles, such as chlorophyll and heme. In non-photosynthetic eukaryotes such as animals, insects, fungi, and protozoa, as well as the α-proteobacteria group of bacteria, ALA is formed by the Shemin pathway.
In plants, algae, bacteria (except for the α-proteobacteria group) and archaea, ALA is produced through C-5 (or Beale) pathway.[1, 2] ALA was found to release iron from ferritin *in vitro*.[3] In the labeled form, it is used in porphyrin biosynthesis studies.[4] It enhances chlorophyll formation[5] and may be used as a photodynamic herbicide.[6] Lately it has been used in photodynamic therapy as it is converted to protoporphyrin IX in tumor tissues.[7, 8]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The product is soluble in water at 50 mg/ml, yielding a clear colorless solution. If used in cell culture, the medium should be changed every 3 days. When dissolved in base, the product forms a cyclic amide.

Storage /Stability

Store desiccated in deep freeze (below -15°C) Store desiccated at −20 °C. Protect from humidity. Under these conditions the product is stable for 3 years. Stock solutions should be refrigerated.

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References

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