For Research Use Only

5-Aminolevulinic acid hydrochloride

$NH_2CH_2CO(CH_2)_2COOH \cdot HCl$ = 167.6

Cas No. 5451-09-2

Product Code : ☐ **AL-00-1** ・・・・・・・・・ 1 g

☐ **AL-00-2** ・・・・・・・・・ 5 g

Lot : _____

Origin : fermentation

Formulation : White powder (Crystal), Soluble in water (solubility: MT 500g/L)

Soluble in MeOH, Insoluble in EtOH

Purity :

Composition	Assay	・・・・・・・・・	min.	98 %
	Amino acid	・・・・・・・・・	max.	1%
	Ashes	・・・・・・・・・	max.	0.1%
	Heavy Metals	・・・・・・・・・	ND	

［Assay methods］Determined by colorimetric and HPLC analysis (1)(2)

Storage :

Store in the dark under 2-8℃ and protect from light.

In case stored as solution, please note description following and avoid long-term storage

・Avoid storage with higher concentration (MT 1%)

・The product is unstable under the condition above pH 7.

1% solution will be stable for 2 days below pH5 and stable for 1 month below pH2.35 (3).

・Decomposed with alkaline solution and converted to dimmer form Pyradine (Irreversible)

・Melting Point (decomp.) 156-158℃

・Filtration is recommended for sterilization of solution

Cautions :

・This reagent is acidic materials so do not ingest, swallow or inhale. Do not get in eyes, on skin or on clothing.

・Protect from direct light in whole process of applications.

Application notes :

5-ALA is applied in variety of scientific fields with wide range. Examples of applications are shown below. Please refer published papers for details of specific applications.

・Application in production of Cytochrome P450 (4)

・Improvement of harvest yield or increase of plant greenness (5)

・Supplement for culture of microorganism or cells from animals (6)

・Research relating production of active oxygen derived from accumulation of excess amount of porphirins (7)(8)

・Photodynamic diagnosis for cancer research (9)

Bibliography

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