bio-techne
TOCRIS

Print Date: Feb 25th 2025

Certificate of Analysis

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Product Name: **Serotonin hydrochloride** **Catalog No.: 3547** **Batch No.: 4**

CAS Number: 153-98-0

IUPAC Name: 3-(2-Aminoethyl)-1*H*-indol-5-ol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{10}H_{12}N_2O.HCl.½H_2O$

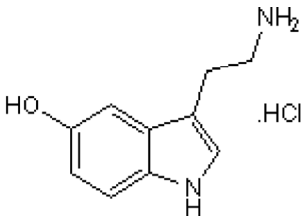
Batch Molecular Weight: 221.69

Physical Appearance: Beige solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.23	6.25	12.41
Found	52.63	5.86	12.18

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CAS Number: 153-98-0

IUPAC Name: 3-(2-Aminoethyl)-1*H*-indol-5-ol hydrochloride

Description:

Serotonin hydrochloride is an endogenous agonist at 5-HT receptors and endogenous substrate for 5-HT transporters. Neurotransmitter that has roles in regulation of mood, emesis, sexuality, sleep and appetite in vivo.

Physical and Chemical Properties:

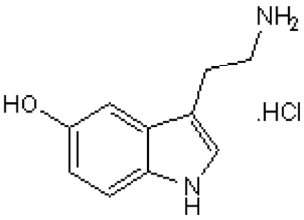
Batch Molecular Formula: $C_{10}H_{12}N_2O.HCl.½H_2O$

Batch Molecular Weight: 221.69

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM
DMSO to 100 mM

This compound is hygroscopic and may absorb atmospheric moisture during prolonged storage, causing the solid to become sticky and/or collapse into a gel or glass-like form. Although purity is unaffected, it may be difficult to extract the full quantity from the vial. In such a situation, we recommend that solutions are made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Barnes and Sharp (1999) A review of central 5-HT receptors and their function. Neuropharmacology ***38*** 1083. PMID: 10462127.