

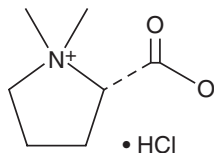
# PRODUCT INFORMATION



## Stachydrine (hydrochloride)

Item No. 20506

**Formal Name:** (2S)-2-carboxy-1,1-dimethyl-pyrrolidinium, inner salt, monohydrochloride  
**MF:** C<sub>7</sub>H<sub>13</sub>NO<sub>2</sub> • HCl  
**FW:** 179.6  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Stachydrine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the stachydrine (hydrochloride) in the solvent of choice. Stachydrine (hydrochloride) is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of stachydrine (hydrochloride) in these solvents is approximately 10 and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of stachydrine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of stachydrine (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Stachydrine is a pyrrolidine betaine first isolated from seed husk and the pulp of the fruit of *C. Leonurus*, and many other Asian plants and fruits. It has been shown to be a potent anti-metastatic agent and to have cardioprotective effects against models of cardiac hypertrophy.<sup>1</sup>

### Reference

1. Zhang, C., Shan, X.-L., Liao, Y.-L., *et al.* Effects of stachydrine on norepinephrine-induced neonatal rat cardiac myocytes hypertrophy and intracellular calcium transients. *BMC Complement. Altern. Med.* **14**, 474 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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