

## 85580/85578 Spermidine trihydrochloride

**CAS Number:** 334-50-9

### Product Description:

Molecular Formula:  $C_7H_{19}N_3 \cdot 3HCl$

Molecular Weight: 254.6 g/mol

mp: 257-259 °C

Is soluble in water (100 mg/ml), yielding a clear, colorless solution.

Spermidine trihydrochloride is hygroscopic.

Store at room temperature

Spermidine is biogenic polyamine formed from putrescine, a precursor of spermine. It was first detected in human sperm, but occurs widely in nature. It is essential in both normal and neoplastic tissue growth.<sup>1</sup>

Spermidine has a role in cell growth processes<sup>2,3</sup> and the formation and interconversion of spermidine in mammalian cells has been reported.<sup>4</sup>

It has been studied in the regulation of tRNA methyltransferase activity<sup>5</sup> and stimulates T4 polynucleotide kinase activity.<sup>6</sup>

### Applications:

Spermidine trihydrochloride has been used as a buffer component for chromosome isolation in bivariate flow cytogenetic analysis and sorting.<sup>8</sup>

Used for the purification of human Rad51 protein by selective spermidine precipitation<sup>11</sup> and can be used in extraction as a buffer component.<sup>10</sup>

Inhibits the nitric oxide synthase.<sup>9</sup>

### References:

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5. *Adv. Enzyme Regul.*, 19, 427-451 (1980).
6. Mach, M., et al., Regulation of tRNA Methyltransferase Activities by Spermidine and Putrescine. Inhibition of Polyamine Synthesis and tRNA Methylation by Alpha-methylornithine or 1,3-diaminopropan-2-ol in *Dictyostelium*. *Biochem. J.*, 202(1), 153-162 (1982).
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  11. Baumann P, et al., Purification of human Rad51 protein by selective spermidine precipitation Mutat. Res. 384, 65-72 (1997)

**Precautions and Disclaimer:**

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