

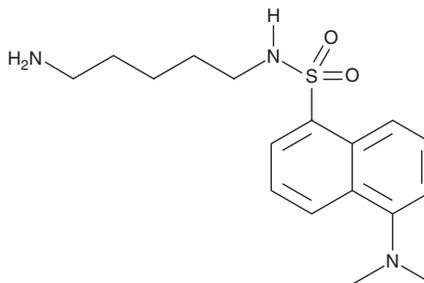
# PRODUCT INFORMATION



## Monodansylcadaverine

Item No. 15571

**CAS Registry No.:** 10121-91-2  
**Formal Name:** N-(5-aminopentyl)-5-(dimethylamino)-1-naphthalenesulfonamide  
**Synonyms:** Dansylcadaverine, MDC  
**MF:** C<sub>17</sub>H<sub>25</sub>N<sub>3</sub>O<sub>2</sub>S  
**FW:** 335.5  
**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

Monodansylcadaverine (MDC) is supplied as a crystalline solid. A stock solution may be made by dissolving the MDC in the solvent of choice. MDC is soluble in the organic solvent methanol, which should be purged with an inert gas, at a concentration of approximately 10 mg/ml.

### Description

MDC is a fluorescent marker for autophagic vacuoles.<sup>1,2</sup> It is an autofluorescent substance incorporated into multilamellar bodies by both an ion trapping mechanism and interaction with membrane lipids, exhibiting a Stokes shift and increased relative fluorescence in hydrophobic environments.<sup>1</sup> MDC selectively accumulates in PaTu 8902 subcellular fractions containing the lysosomal enzymes acid phosphatase and cathepsin D, but not those containing the rough and smooth endoplasmic reticulum markers TRAM and cytochrome P450, respectively.<sup>2</sup>

### References

1. Niemann, A., Takatsuki, A., and Elsässer, H.P. The lysosomotropic agent monodansylcadaverine also acts as a solvent polarity probe. *J. Histochem. Cytochem.* **48(2)**, 251-258 (2000).
2. Biederbick, A., Kern, H.F., and Elsässer, H.P. Monodansylcadaverine (MDC) is a specific in vivo marker for autophagic vacuoles. *Eur. J. Cell Biol.* **66(1)**, 3-14 (1995).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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