

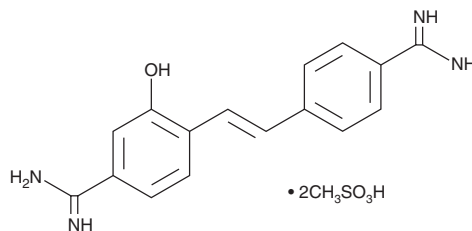
# PRODUCT INFORMATION



## Hydroxystilbamidine (methanesulfonate)

Item No. 26858

**CAS Registry No.:** 223769-64-0  
**Formal Name:** 4-[2-[4-(aminoiminomethyl)phenyl]ethenyl]-3-hydroxybenzenecarboximidamide, dimethanesulfonate  
**MF:** C<sub>16</sub>H<sub>16</sub>N<sub>4</sub>O • 2CH<sub>3</sub>SO<sub>3</sub>H  
**FW:** 472.5  
**Ex./Em. Max:** 323/620 nm for tissue sections; 360/600 and 360/450 nm for DNA and RNA purposes, respectively



**Supplied as:** A powder  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Special Conditions:** Light sensitive

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

### Description

Hydroxystilbamidine is a fluorescent neuronal retrograde tracer that labels the neuronal cell body as well as proximal dendrites.<sup>1,2</sup> Hydroxystilbamidine, when visualized in tissue sections, displays excitation/emission maxima of 323/620 nm, respectively. It is also a nucleic acid dye that can be used to label DNA and RNA in fixed or unfixed dead cells.<sup>3</sup> It displays an excitation maximum of 360 nm and emission maxima of 450 and 600 nm when bound to DNA but only emits at 450 nm when bound to RNA.

### Assay Protocol

- Labeling of neurons:**
  - Prepare a 1 to 10% solution of hydroxystilbamidine with saline.\*
  - Administer via intraperitoneal or intracerebroventricular injection.
- Tissue fixation:** Fix tissue using PBS containing 4% paraformaldehyde or other fixative of choice.\*\*
- Optional counterstaining:** Fixed tissue sections containing hydroxystilbamidine may be further processed with secondary markers such as fluorescent counterstains, secondary retrograde tracers, autoradiographic probes, or antibodies for immunohistochemistry.
- Observe tissue sections using fluorescence microscopy:** Hydroxystilbamidine displays excitation/emission maxima of 323 and 620 nm, respectively.

\*Note 1: The recommended starting concentration is 4% hydroxystilbamidine. If injection site necrosis occurs, or fluorescent labeling is too intense, reduce the concentration to 2%.

\*\*Note 2: Hydroxystilbamidine fluorescence is quenched by fixatives containing high concentrations of heavy metals, such as mercury or osmium. Background fluorescence may be increased in fixatives containing greater than 1% glutaraldehyde.

### References

- Akhavan, M., Hoang, T.X., and Havton, L.A. *J. Neurosci. Methods* **152(1-2)**, 156-162 (2006).
- Li, C., Marshall, C.T., Lu, C., et al. *Biotech. Histochem.* **81(1)**, 41-50 (2006).
- Festy, B. and Daune, M. *Biochemistry* **12(24)**, 4827-4834 (1973).

#### 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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