

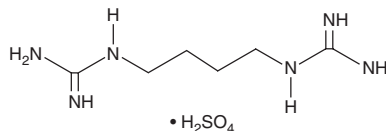
# PRODUCT INFORMATION



## Arcaine (sulfate)

Item No. 33284

**CAS Registry No.:** 14923-17-2  
**Formal Name:** N,N''-1,4-butanediylbis-guanidine, monosulfate  
**MF:** C<sub>6</sub>H<sub>16</sub>N<sub>6</sub> • H<sub>2</sub>SO<sub>4</sub>  
**FW:** 270.3  
**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

Arcaine (sulfate) is supplied as a crystalline solid. Aqueous solutions of arcaine (sulfate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of arcaine (sulfate) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Arcaine is an antagonist of the NMDA receptor (IC<sub>50</sub> = 9.13 μM).<sup>1</sup> It inhibits NMDA and glycine-induced inward currents in *X. laevis* oocytes expressing rat NMDA receptors with an IC<sub>50</sub> value of 60.1 μM.<sup>3</sup> Arcaine impairs contextual and auditory fear conditioning in rats when administered intraperitoneally post-training at a dose of 10 mg/kg.<sup>3</sup>

### References

1. Sharma, T.A., Carr, A.J., Davis, R.S., *et al.* Aromatic analogs of arcaine inhibit MK-801 binding to the NMDA receptor. *Bioorg. Med. Chem. Lett.* **8(24)**, 3459-3464 (1998).
2. Maciver, C.R., Bednar, D.L., and Karbon, E.L. Opposite effects of spermine and arcaine on responses of N-methyl-D-aspartate receptors expressed in *Xenopus* oocytes. *Neurosci. Lett.* **132(2)**, 146-150 (1991).
3. Camera, K., Mello, C.F., Ceretta, A.P.C., *et al.* Systemic administration of polyaminergic agents modulate fear conditioning in rats. *Psychopharmacology (Berl)* **192(4)**, 457-464 (2007).

#### 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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