

Product Specification Sheet

Product Name: SPM-927 (Lacosamide)

Catalog Number: C7927

Technical information:

Chemical Formula: $C_{13}H_{18}N_2O_3$

CAS #: 175481-36-4

Molecular Weight: 250.29

Purity: > 98%

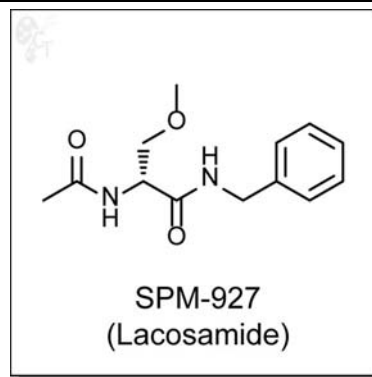
Appearance: White solid

Solubility: Soluble in DMSO up to 22 mM

Chemical Name: (2R)-2-(Acetylamino)-3-methoxy-N-(phenylmethyl)propanamide

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



Handling: • To make 10 mM stock solution, add 0.4mL of DMSO for each mg of SPM-927 (Lacosamide).

- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Lacosamide is a small peptide-based agent with a dual mode of action for anticonvulsive and antiepileptic treatment. Lacosamide binds weakly (25-50% inhibition of radioligand binding) to the sodium channel at batrachotoxin site 2. It selectively enhances sodium channel slow inactivation with no effects on fast inactivation. This slow mode of action can lead to normalization of activation thresholds and a reduced pathophysiological hyperresponsiveness. Lacosamide was also shown to be a binding partner to collapsin-response mediator protein 2 (CRMP-2 or DRP-2) with a binding affinity of 5 μ M. [1]

Extensive binding studies have shown that Lacosamide and its metabolites do not significantly bind to any of the known binding sites of other anticonvulsant or analgesic agents. Furthermore, it experiences no uptake or metabolism in major neurotransmitters. [2]

Lacosamide is also being studied in animal models of pain and inflammation.

- Reference:**
1. Beyreuther et al., Lacosamide: a review of preclinical properties. CNS Drug, 2007, 13(1), 21-42. Pubmed ID: 17461888
 2. Kellinghaus et al., Lacosamide as treatment for partial epilepsy: mechanisms of action, pharmacology, effects, and safety. Therapeut. Clin. Risk Mgmt. 2009, 5, 757-766. Pubmed ID: 19816574

To reorder: <http://www.cellagentech.com/SPM-927-Lacosamide/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.