

## PRODUCT DATA SHEET

# Sambutoxin

#### Code No.: BIA-S3085

Pack sizes: 0.5 mg, 2.5 mg



Synonyms

(-)-Sambutoxin

### Specifications

| CAS #             | : | 160047-56-3                                     |
|-------------------|---|---|
| Molecular Formula | : | C <sub>28</sub> H <sub>39</sub> NO <sub>4</sub> |
| Molecular Weight  | : | 453.6   |
| Source            | : | <i>Fusarium</i> sp.                             |
| Appearance        | : | Tan solid                                       |
| Purity            | : | >95% by HPLC                                    |
| Long Term Storage | : | -20°C   |
| Solubility        | : | Soluble in methanol and DMSO.                   |
|                   |   |   |

### **Application Notes**

Sambutoxin is a 4-hydroxy-2-pyridone fungal metabolite initially produced by Fusarium samucinum isolated from rotted potato tubers by Kim and co-workers, Seoul National University, Korea in 1995. Sambutoxin is a potent and selective inhibitor of mitochondrial respiration. Sambutoxin inhibits platelet aggregation, decreases platelet activating factor-induced disaggregation time in a dose-dependent manner and decreases thrombin and arachidonic acid-induced ATP release. Sambutoxin has remarkable antiproliferative effects, inhibiting ROS production and inducing G2/M arrest and apoptosis by activating the mitochondrial apoptosis pathway.

### References

- 1. Kim J-C. et al. (1995). Sambutoxin: A new mycotoxin isolated from Fusarium sambucinum. Tetrahedron Lett., 36, 1047.
- 2. Kawai K. et al. (1997). A novel respiratory chain inhibitor, sambutoxin from Fusarium sambucinum. Cereal Res. Commun., 25, 325.
- 3. Hong C.M. et al. (1998). Effects of sambutoxin on the rabbit platelet aggregation. J. Toxicol. Public Health, 14, 333.
- 4. Li L-N. et al. (2018). Discovery and characterization of 4-hydroxy-2-pyridone derivative sambutoxin as a potent and promising anticancer drug candidate: Activity and molecular mechanism. Mol. Pharmaceutics, 15, 4898.

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