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产品名称: 麦斯明  
CAS 号: 532-12-7  
产品货号: S89710

|                    |                                                                                                                                                                                                                                                                                                                                           |                      |              |             |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------|-------------|
| 生物活性:              |                                                                                                                                                                                                                                                                                                                                           |                      |              |             |
| Description        | Myosmine, a specific tobacco alkaloid in nuts and nut products, has low affinity for $\alpha 4\beta 2$ nicotinic acetylcholinergic receptors (nAChR) with a $K_i$ of 3300 nM[1][2].                                                                                                                                                       |                      |              |             |
| IC50 & Target      | $K_i$ : 3300 nM ( $\alpha 4\beta 2$ nAChR) and $>10 \mu\text{M}$ (AT1)[1]                                                                                                                                                                                                                                                                 |                      |              |             |
| In Vitro           | Myosmine is easily nitrosated, yielding 4-hydroxy-1-(3-pyridyl)-1-butanone (HPB) and the esophageal tobacco carcinogen N'-nitrosornicotine[2].                                                                                                                                                                                            |                      |              |             |
| In Vivo            | Myosmine (0.001, 0.005, 0.5, and 50 micromol/kg; oral; in Wistar rats) causes a higher percentage of the radioactivity excreted in urine (86.2% and 88.9%) at the two lower doses (0.001 and 0.005 micromol/kg), as compared with the higher doses (0.5 and 50 micromol/kg), where only 77.8% and 75.4% of the dose is found in urine[2]. |                      |              |             |
| Solvent&Solubility | <b>细胞实验:</b><br>H2O 中的溶解度 : $\geq 100 \text{ mg/mL}$ (684.04 mM)<br>DMSO 中的溶解度 : 100 mg/mL (684.04 mM); 超声助溶; 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO)<br>* " $\geq$ " means soluble, but saturation unknown)                                                                                                                                 |                      |              |             |
|                    | <b>Preparing Stock Solutions</b>                                                                                                                                                                                                                                                                                                          | <b>Solvent</b>       | <b>Mass</b>  |             |
|                    |                                                                                                                                                                                                                                                                                                                                           | <b>Concentration</b> |              |             |
|                    |                                                                                                                                                                                                                                                                                                                                           |                      | <b>1 mg</b>  | <b>5 mg</b> |
|                    |                                                                                                                                                                                                                                                                                                                                           |                      | <b>10 mg</b> |             |
|                    |                                                                                                                                                                                                                                                                                                                                           | 1 mM                 | 6.8404 mL    | 34.2021 mL  |
|                    |                                                                                                                                                                                                                                                                                                                                           | 5 mM                 | 1.3681 mL    | 6.8404 mL   |
|                    |                                                                                                                                                                                                                                                                                                                                           | 10 mM                | 0.6840 mL    | 3.4202 mL   |
|                    | * 请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。<br>储备液的保存方式和期限: $-80^\circ\text{C}$ , 6 months; $-20^\circ\text{C}$ , 1 month. $-80^\circ\text{C}$ 储存时, 请在 6 个月内使用, $-20^\circ\text{C}$ 储存时, 请在 1 个月内使用。<br>* 备注: 如您选择水作为储备液, 请稀释至工作液后, 再用 $0.22 \mu\text{m}$ 的滤膜过滤除菌后使用。                                                    |                      |              |             |
| 参考文献               | [1]. G Ferretti, et al. Binding of Nicotine and Homoazanicotine Analogues at Neuronal Nicotinic Acetylcholinergic (nACh) Receptors. Bioorg Med Chem Lett. 2003 Feb 24;13(4):733-5.<br>[2]. Wolfgang Zwicknagl, et al. Metabolism of Myosmine in Wistar Rats. Drug Metab Dispos. 2005 Nov;33(11):1648-56.                                  |                      |              |             |



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### 完整储备液配制表:

请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液;一旦配成溶液,请分装保存,避免反复冻融造成的产品失效。储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month (protect from light)。-80°C 储存时,请在 6 个月内使用, -20°C 储存时,请在 1 个月内使用。

| 可选溶剂 | 质量<br>溶剂体积<br>浓度 | 1 mg      | 5 mg       | 10 mg      | 25 mg       |
|------|------------------|-----------|------------|------------|-------------|
|      |                  |           |            |            |             |
| DMSO | 1 mM             | 6.8404 mL | 34.2021 mL | 68.4041 mL | 171.0103 mL |
|      | 5 mM             | 1.3681 mL | 6.8404 mL  | 13.6808 mL | 34.2021 mL  |
|      | 10 mM            | 0.6840 mL | 3.4202 mL  | 6.8404 mL  | 17.1010 mL  |
|      | 15 mM            | 0.4560 mL | 2.2801 mL  | 4.5603 mL  | 11.4007 mL  |
|      | 20 mM            | 0.3420 mL | 1.7101 mL  | 3.4202 mL  | 8.5505 mL   |
|      | 25 mM            | 0.2736 mL | 1.3681 mL  | 2.7362 mL  | 6.8404 mL   |
|      | 30 mM            | 0.2280 mL | 1.1401 mL  | 2.2801 mL  | 5.7003 mL   |
|      | 40 mM            | 0.1710 mL | 0.8551 mL  | 1.7101 mL  | 4.2753 mL   |
|      | 50 mM            | 0.1368 mL | 0.6840 mL  | 1.3681 mL  | 3.4202 mL   |
|      | 60 mM            | 0.1140 mL | 0.5700 mL  | 1.1401 mL  | 2.8502 mL   |
|      | 80 mM            | 0.0855 mL | 0.4275 mL  | 0.8551 mL  | 2.1376 mL   |
|      | 100 mM           | 0.0684 mL | 0.3420 mL  | 0.6840 mL  | 1.7101 mL   |