

产品名称：
**(E)-1-(4-chlorophenyl)-3-(1,1,1-trichloro-4-oxo-6-phenylhex-5-en-2-yl)thio
urea**
产品别名：**Sal003**

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| 生物活性: | | | | | |
| Description | Sal003 is a potent, specific and cell-permeable inhibitor of the eukaryotic translation initiation factor 2α (eIF2α) phosphatase. Sal003 is a derivative of salubrinal[1]. | | | | |
| IC ₅₀ & Target | eIF2α phosphatase[1] | | | | |
| In Vitro | Sal003 (20 μM; 1-12 hours) sharply increases eIF2α phosphorylation in mouse embryonic fibroblasts (MEFs)[2]. | | | | |
| | Eukaryotic translation initiation factor 2α (eIF2α) phosphorylation by Sal003 (10 μM; 1 hour) enhances subtilase cytotoxin (SubAB)-induced apoptotic signaling[1]. | | | | |
| | Sal003 promotes eIF2α phosphorylation leads to impairment of synaptic plasticity and memory[1]. | | | | |
| | Apoptosis Analysis[2] | | | | |
| | Cell Line: | HeLa cells | | | |
| | Concentration: | 10 μM | | | |
| | Incubation Time: | 1 hour | | | |
| | Result: | Phosphorylated eIF2α and thus enhanced SubAB-induced apoptotic signaling. | | | |
| | Western Blot Analysis[1] | | | | |
| | Cell Line: | Mouse embryonic fibroblasts (MEFs) | | | |
| | Concentration: | 20 μM | | | |
| Incubation Time: | 1 hour, 3 hours, 6 hours, 12 hours | | | | |
| Result: | Sharply increased eIF2α phosphorylation in mouse MEFs. | | | | |
| In Vivo | Sal003 (20Mm; intrahippocampal injection; 8 minutes) impairs contextual memory in vivo[1]. | | | | |
| | Animal Model: | Rats (300-325g)[1] | | | |
| | Dosage: | 20 μM | | | |
| | Administration: | Intrahippocampal injection; 8 minutes | | | |
| | Result: | Impaired contextual memory. | | | |
| In Vitro: DMSO : ≥ 100 mg/mL (215.88 mM) * "≥" means soluble, but saturation unknown. | | | | | |
| Preparing Stock Solutions | Solvent | Mass | | | |
| | Concentration | | 1 mg | 5 mg | 10 mg |
| | 1 mM | | 2.1588 mL | 10.7942 mL | 21.5885 mL |
| | 5 mM | | 0.4318 mL | 2.1588 mL | 4.3177 mL |
| 10 mM | | 0.2159 mL | 1.0794 mL | 2.1588 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。 | | | | | |
| 储备液的保存方式和期限 -80°C, 6 months; -20°C, 1 month。 -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。 | | | | | |
| In Vivo: | | | | | |

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| Solvent&Solubility | <p>请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂：</p> <p>——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶</p> <p>1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline</p> <p>Solubility: 2.5 mg/mL (5.40 mM); Suspended solution; Need ultrasonic</p> <p>此方案可获得 2.5 mg/mL (5.40 mM)的均匀悬浊液，悬浊液可用于口服和腹腔注射。</p> <p>以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。</p> <p>2.请依序添加每种溶剂： 10% DMSO →90% corn oil</p> <p>Solubility: \geq 2.5 mg/mL (5.40 mM); Clear solution</p> <p>此方案可获得 \geq 2.5 mg/mL (5.40 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。</p> <p>以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。</p> |
| References | <p>[1]. Costa-Mattioli M, et al. eIF2alpha phosphorylation bidirectionally regulates the switch from short- to long-term synaptic plasticity and memory. Cell. 2007 Apr 6;129(1):195-206.</p> <p>[2]. Yahiro K, et al. Regulation of subtilase cytotoxin-induced cell death by an RNA-dependent protein kinase-like endoplasmic reticulum kinase-dependent proteasome pathway in HeLa cells. Infect Immun. 2012 May;80(5):1803-14.</p> |

源叶生物