# Product data sheet

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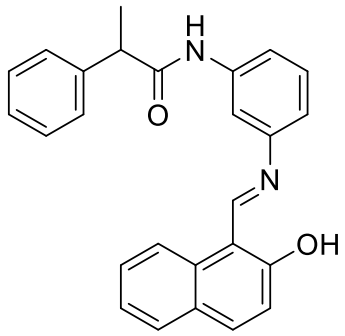
|---|---|
| MedKoo Cat#: 407409<br>Name: Salermide<br>CAS#: 1105698-15-4<br>Chemical Formula: $C_{16}H_{14}CoN_2O_2$<br>Exact Mass: 325.0387<br>Molecular Weight: 325.23 |  |
| Product supplied as: | Powder |
| Purity (by HPLC): | ≥ 98% |
| Shipping conditions | Ambient temperature |
| Storage conditions: | Powder: -20°C 3 years; 4°C 2 years. |
| | In solvent: -80°C 3 months; -20°C 2 weeks. |

**1. Product description:**
Salermide is a Sirtuin inhibitor with a strong cancer-specific proapoptotic effect. Salermide was well tolerated by mice at concentrations up to 100 muM and prompted tumour-specific cell death in a wide range of human cancer cell lines.

**2. CoA, QC data, SDS, and handling instruction**
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

**3. Solubility data**

| Solvent | Max Conc. mg/mL | Max Conc. mM |
|---|---|---|
| To be determined | To be determined | To be determined |

**4. Stock solution preparation table:**

| Concentration / Solvent Volume / Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.54 mL | 12.68 mL | 25.35 mL |
| 5 mM | 0.51 mL | 2.54 mL | 5.07 mL |
| 10 mM | 0.25 mL | 1.27 mL | 2.54 mL |
| 50 mM | 0.05 mL | 0.25 mL | 0.51 mL |

**5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator**
Please refer the product web page under section of "Calculator"

**6. Recommended literature which reported protocols for in vitro and in vivo study**
In vitro study


1. Yar Saglam AS, Yilmaz A, Onen HI, Alp E, Kayhan H, Ekmekci A. HDAC inhibitors, MS-275 and salermide, potentiates the anticancer effect of EF24 in human pancreatic cancer cells. EXCLI J. 2016 Apr 4;15:246-55. doi: 10.17179/excli2016-186. PMID: 27330528; PMCID: PMC4908665.
2. Dastjerdi MN, Salahshoor MR, Mardani M, Rabbani M, Hashemibeni B, Gharagozloo M, Kazemi M, Esmaeil N, Roshankhah Sh, Golmohammadi R, Mobarakian M. The apoptotic effects of sirtuin1 inhibitor on the MCF-7 and MRC-5 cell lines. Res Pharm Sci. 2013 Apr;8(2):79-89. PMID: 24019817; PMCID: PMC3764679.


In vivo study


1. Farr GH 3rd, Morris M, Gomez A, Pham T, Kilroy E, Parker EU, Said S, Henry C, Maves L. A novel chemical-combination screen in zebrafish identifies epigenetic small molecule candidates for the treatment of Duchenne muscular dystrophy. Skelet Muscle. 2020 Oct 15;10(1):29. doi: 10.1186/s13395-020-00251-4. PMID: 33059738; PMCID: PMC7559456.
2. Lara E, Mai A, Calvanese V, Altucci L, Lopez-Nieva P, Martinez-Chantar ML, Varela-Rey M, Rotili D, Nebbioso A, Ropero S, Montoya G, Oyarzabal J, Velasco S, Serrano M, Witt M, Villar-Garea A, Imhof A, Mato JM, Esteller M, Fraga MF. Salermide, a Sirtuin inhibitor with a strong cancer-specific proapoptotic effect. Oncogene. 2009 Feb 12;28(6):781-91. doi: 10.1038/onc.2008.436. Epub 2008 Dec 8. Erratum in: Oncogene. 2009 Feb 26;28(8):1168. Inhof, A [corrected to Imhof, A]. PMID: 19060927.

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**7. Bioactivity**

Biological target:

Salermide is an inhibitor of SIRT1 and SIRT2, causing tumor-specific apoptotic cell death.

In vitro activity

This study investigated the effects of HDAC inhibitors, including Salermide, on human pancreatic cancer cells (BxPC-3) alone and in combination with EF24 (EF). Salermide has potential in impacting pancreatic cancer cell behavior. Salermide significantly reduced the viability of BxPC-3 cells. Salermide and MS-275 treatments increased the acetylation of histone H3 and H4 and caused cell cycle arrest at the G1 phase.

Reference: EXCLI J. 2016 Apr 4;15:246-55. https://pubmed.ncbi.nlm.nih.gov/27330528/

In vivo activity

This study demonstrates that the combination of oxamflatin and salermide ameliorated duchenne muscular dystrophy mutant zebrafish skeletal muscle degeneration. The combination caused increased levels of histone H4 acetylation in zebrafish larvae.

Reference: Skelet Muscle. 2020 Oct 15;10(1):29. https://pubmed.ncbi.nlm.nih.gov/33059738/

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*