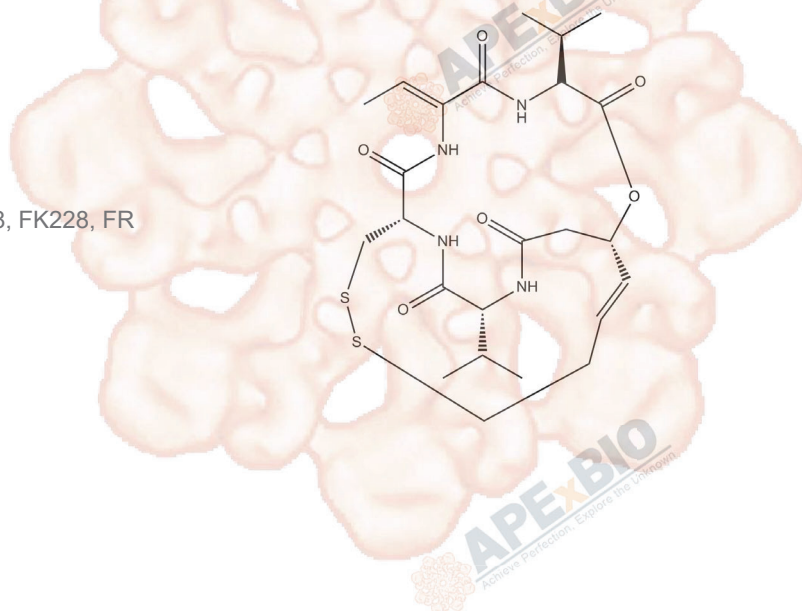


Product Data Sheet

Romidepsin (FK228, depsipeptide)

Cat. No.:	A8173
CAS No.:	128517-07-7
Formula:	C ₂₄ H ₃₆ N ₄ O ₆ S ₂
M.Wt:	540.7
Synonyms:	Istodax, Antibiotic FR 901228, FK228, FR 901228, FK-228, Romidepsin
Target:	DNA Damage/DNA Repair
Pathway:	HDAC
Storage:	Store at -20°C



Solvent & Solubility

≥27.035mg/mL in DMSO, ≥35.27 mg/mL in EtOH with ultrasonic, insoluble in H₂O

In Vitro

Preparing Stock Solutions	Mass		1mg	5mg	10mg
	Solvent	Concentration			
		1 mM	1.8495 mL	9.2473 mL	18.4945 mL
		5 mM	0.3699 mL	1.8495 mL	3.6989 mL
		10 mM	0.1849 mL	0.9247 mL	1.8495 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary HDAC1/HDAC2 inhibitor, potent and selective

IC₅₀ & Target 36 nM (HDAC1), 47 nM (HDAC2)

Cell Viability Assay

In Vitro

Cell Line: Human NB cell (SMS-KCNR, SK-N-BE2, SH-SY5Y, SK-N-AS, L A1-15N, SH-SHEP and IMR32 lines)

Preparation method: The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	72h; IC50 ranged from 1–6.5 ng/ml
	Applications:	Romidepsin (0.5–30 ng/mL) resulted in a dose-dependent decrease in cell viability of all NB cell lines as measured by the MTT or MTS assay. The romidepsin IC50 ranged from 1–6.5 ng/ml in different NB cell lines. Morphological examination by light microscopy revealed that all of the NB cell lines treated with romidepsin had a dose-dependent decrease in cell number and extensive change in morphology to rounded, denser and non-adherent cells.
In Vivo	Animal experiment	
	Animal models:	Normal and nude mice
	Dosage form:	1.0-10kg/mL; i.v.; the tail injection
	Applications:	Colon 38 and Colon 26 were implanted sc and M5076 and Meth A were implanted id in mice on Day 0. When the drug were given beginning on Day 1. romidepsin markedly inhibited the growth of Colon 38 and M5076, but not Colon26 or Meth A. In addition, when the drug were given beginning on Day 4, or on 7 or 8, romidepsin potently inhibited the growth of Colon 38, M5076 and Meth A, and its activities against M5076 and Meth A were potent than when it was given beginning on Day 1.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Kim SR, Lewis JM, et al. "BET inhibition in advanced cutaneous T cell lymphoma is synergistically potentiated by BCL2 inhibition or HDAC inhibition." *Oncotarget*. 2018 Jun 26;9(49):29193-29207.PMID:30018745
2. Nakano Y, Kelly MC, et al. "Defects in the Alternative Splicing-Dependent Regulation of REST Cause Deafness." *Cell*. 2018 Jul 26;174(3):536-548.e21.PMID:29961578
3. Ho CF, Bon CP, et al. "Expression of DHA-Metabolizing Enzyme Alox15 is Regulated by Selective Histone Acetylation in Neuroblastoma Cells." *Neurochem Res*. 2017 Dec 12.PMID:29235036
4. Tarasenko N, Chekroun-Setti H, et al. "COMPARISON OF THE ANTICANCER PROPERTIES OF A NOVEL VALPROIC ACID PRODRUG TO LEADING HISTONE DEACETYLASE INHIBITORS." *J Cell Biochem*. 2017 Nov 14.PMID:29135083
5. Bagnall NH, Hines BM, et al."Insecticidal activities of histone deacetylase inhibitors against a dipteran parasite of sheep, *Lucilia cuprina*." *Int J Parasitol Drugs Drug Resist*. 2017 Apr;7(1):51-60.PMID:28110187

See more customer validations on www.apexbt.com.

References

- [1] Panicker J, Li Z, McMahon C, et al. Romidepsin (FK228/depsipeptide) controls growth and induces apoptosis in neuroblastoma

tumor cells[J]. Cell Cycle, 2010, 9(9): 1830-1838.

[2] Ueda H1, Manda T, Matsumoto S, Mukumoto S, Nishigaki F, Kawamura I, Shimomura K. FR901228, a novel antitumor bicyclic depsipeptide produced by Chromobacterium violaceum No. 968. III. Antitumor activities on experimental tumors in mice. J Antibiot (Tokyo). 1994 Mar;47(3):315-23.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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