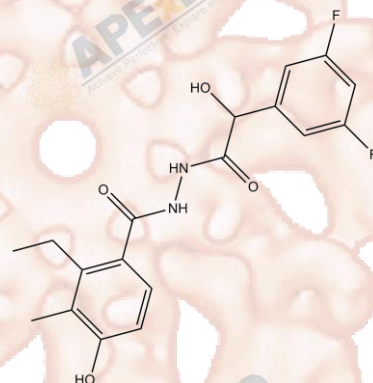


Product Data Sheet

EMD638683

Cat. No.:	A3389
CAS No.:	1181770-72-8
Formula:	C ₁₈ H ₁₈ F ₂ N ₂ O ₄
M.Wt:	364.34
Synonyms:	EMD 638683; EMD-638683
Target:	Others
Pathway:	SGK
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥18.2 mg/mL in DMSO; ≥45.8 mg/mL in EtOH with gentle warming

In Vitro

	Solvent	Mass	1mg	5mg	10mg
Preparing Stock Solutions	Concentration				
	1 mM		2.7447 mL	13.7234 mL	27.4469 mL
	5 mM		0.5489 mL	2.7447 mL	5.4894 mL
	10 mM		0.2745 mL	1.3723 mL	2.7447 mL

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

Biological Activity

Shortsummary

SGK1 inhibitor

IC₅₀ & Target

3 μM (SGK1)

In Vitro

Cell Viability Assay

Cell Line: HeLa-cells

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: 10 μM , 24 hours

	Applications:	As an inhibitor of SGK1, EMD638683 inhibited the phosphorylation of NDRG1 (N-Myc downstream-regulated gene 1), a specific target of SGK1. The IC50 value is 3.35 μ M.
In Vivo	Animal experiment	
	Animal models:	SGK1 deficient mice ((sgk1-/-)
	Dosage form:	In chow, 600mg/kg, 4 days
	Applications:	The tap drinking water was replaced by 10 % fructose for 3 weeks to develop hyperinsulinemia. Treatment of EMD638683 for four days led to normalization of systolic blood pressure (from 111 ± 4 to 87 ± 3 mmHg). It did not significantly modify fluid and food intake and did not significantly alter the urinary Na ⁺ and K ⁺ excretion, but significantly increased the urinary output and significantly decreased body weight.
	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. Greenawalt EJ, Edmonds MD, et al. "Targeting of SGK1 by miR-576-3p Inhibits Lung Adenocarcinoma Migration and Invasion." Mol Cancer Res. 2018 Sep 26.PMID:30257988
2. Schmid E, Stagno MJ, et al. "Serum and Glucocorticoid Inducible Kinase 1-Sensitive Survival,Proliferation and Migration of Rhabdomyosarcoma Cells." Cell Physiol Biochem. 2017 Oct 9;43(3):1301-1308.PMID:28992614
3. Mason JA, Davison-Versagli CA, et al. "Oncogenic Ras differentially regulates metabolism and anoikis in extracellular matrix-detached cells." Cell Death Differ. 2016 Feb 26.PMID:26915296
4. Dr.Alvaro Diaz. "Condicionamiento de células dendríticas por la capa laminar de Echinococcus granulosus: búsqueda de agonistas y mecanismos a nivel de señalización." colibri.udelar.edu.uy.2016.

See more customer validations on www.apexbt.com.

References

- [1] Ackermann T F, Boini K M, Beier N, et al. EMD638683, a novel SGK inhibitor with antihypertensive potency. Cellular Physiology and Biochemistry, 2011, 28(1): 137-146.

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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