

Forskolin, Adenylyl cyclase activator ab120058

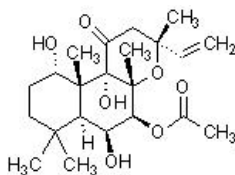
45 References **画像数 4**

製品の概要

製品名	Forskolin, Adenylyl cyclase activator
製品の詳細	Adenylyl cyclase activator
生理活性の詳細	Cell-permeable activator of adenylyl cyclase. Interacts directly with the catalytic subunit of the enzyme to increase intracellular cAMP levels. Positive inotropic, platelet antiaggregatory and antihypertensive actions <i>in vivo</i> . 3D Growth matrix component used in liver organoid generation.

CAS 番号 66575-29-9

構造式



製品の特性

体系名	(3R,4aR,5S,6S,6aS,10S,10aR,10bS)-Dodecahydro-6,10,10b-trihydroxy-3,4a,7,7,10a-pentamethyl-1-oxo-3-vinyl-1H-benzo[7]chromen-5-yl acetate
分子量	410.50
分子式	C ₂₂ H ₃₄ O ₇
PubChem 登録番号	47936
保存方法	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
溶解性	Soluble in ethanol to 10 mM and in DMSO to 25 mM
使用に関する注意	<p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Refer to SDS for further information.</p> <p>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p>

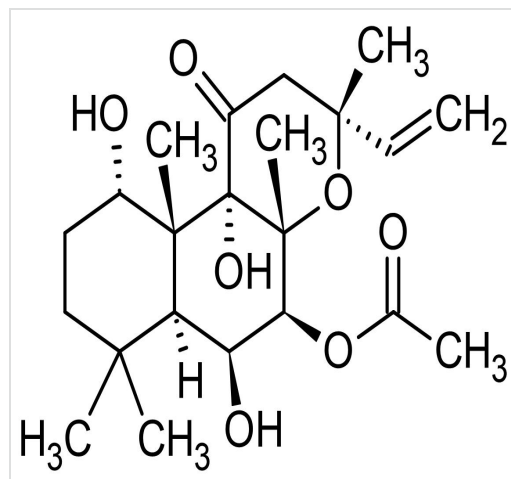
SMILES 線形表記

CC(=O)O[C@H]2[C@@H](O)[C@@H]1[C@](C)([C@@H](O)CCC1(C)C)[C@@]3(O)C(=O)C[C@](C)(C=C)O[C@]23C

由来

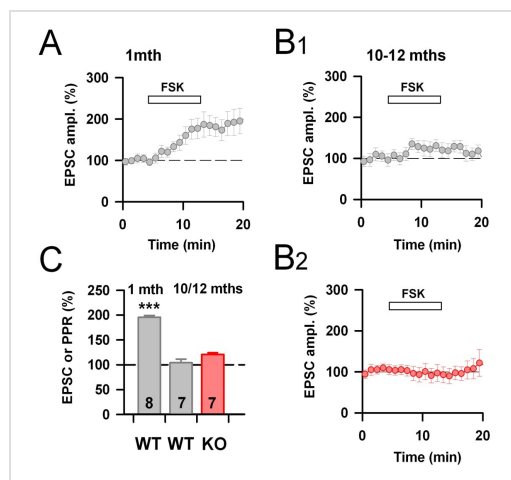
Coleus forskohlii

画像



Chemical Structure - Forskolin, Adenylyl cyclase activator (ab120058)

2D chemical structure image of ab120058, Forskolin, Adenylyl cyclase activator



Functional Studies - Forskolin, Adenylyl cyclase activator (ab120058)

Gambino et al PLoS One. 2010 Jul 2;5(7):e11399. doi: 10.1371/journal.pone.0011399. Fig S4. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

Effect of AC activation onto adult Mecp2X/Y and Mecp2308/Y Cortico-LA synapses.

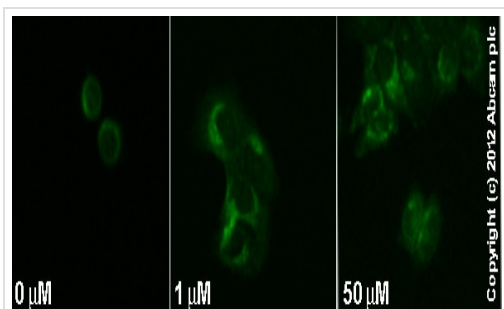
A: A 10 minute application of the AC activator Forskolin (FSK, 50 μM) potentiates the Cortico-LA EPSC in young WT animals.

B: The same protocol is inefficient in adult WT mice (B1) and Mecp2308/Y mice (B2).

C: Summary plot of similar pharmacological experiments in WT and KO mice.

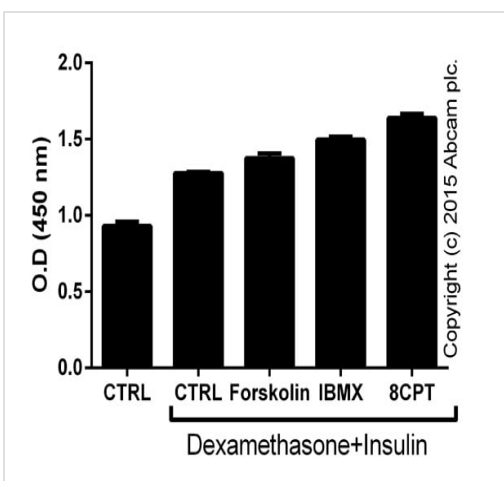
***: $P < 0.001$.

Number of recorded cells is indicated.



Functional Studies - Forskolin, Adenylyl cyclase activator (ab120058)

ab2541 staining XIAP in MCF7 cells treated with forskolin (ab120058), by ICC/IF. Increase in XIAP expression correlates with increased concentration of forskolin, as described in literature. The cells were incubated at 37°C for 2h in media containing different concentrations of ab120058 (forskolin) in DMSO, fixed with 100% methanol for 5 minutes at -20°C and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with **ab2541** (1 μg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody.



Functional Studies - Forskolin, Adenylyl cyclase activator (ab120058)

1e7 3T3-L1 cells were treated for 15 minutes with 1 μM dexamethasone (**ab120743**) and 1 μg x mL⁻¹ insulin (**ab123768**) with the addition of 50 μM forskolin (ab120058), 0.5 mM IBMX (**ab120840**) or 0.1 mM 8-CPT-cAMP (**ab120424**), extracted according to the protocol. Lysates were diluted 50-fold, and tested in duplicates (+/-SD).

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