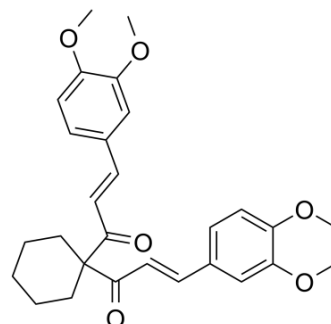


FLLL32

Cat. No.:	HY-100544
CAS No.:	1226895-15-3
Molecular Formula:	C ₂₈ H ₃₂ O ₆
Molecular Weight:	464.55
Target:	STAT; JAK; Apoptosis
Pathway:	JAK/STAT Signaling; Stem Cell/Wnt; Epigenetics; Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (269.08 mM; Need ultrasonic)																					
	H ₂ O : < 0.1 mg/mL (insoluble)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>2.1526 mL</td> <td>10.7631 mL</td> <td>21.5262 mL</td> </tr> <tr> <td>5 mM</td> <td>0.4305 mL</td> <td>2.1526 mL</td> <td>4.3052 mL</td> </tr> <tr> <td>10 mM</td> <td>0.2153 mL</td> <td>1.0763 mL</td> <td>2.1526 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	2.1526 mL	10.7631 mL	21.5262 mL	5 mM	0.4305 mL	2.1526 mL	4.3052 mL	10 mM	0.2153 mL	1.0763 mL	2.1526 mL
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Please refer to the solubility information to select the appropriate solvent.																						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.48 mM); Clear solution																					

BIOLOGICAL ACTIVITY

Description	FLLL32, a synthetic analog of curcuma, is a JAK2/STAT3 dual inhibitor with anti-tumor activity. FLLL32 can inhibit the induction of STAT3 phosphorylation by IFN α and IL-6 in breast cancer cells ^{[1][2]} .
IC₅₀ & Target	JAK2/STAT3 ^[1]
In Vitro	FLLL32 specifically reduces STAT3 phosphorylation at Tyr705 (pSTAT3) and induces apoptosis at micromolar amounts in human melanoma cell lines and primary melanoma cultures ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

-
- Cancer Manag Res. 2020 Nov 24;12:12067-12075.

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REFERENCES

- [1]. Bill MA, et al. The small molecule curcumin analog FLLL32 induces apoptosis in melanoma cells via STAT3inhibition and retains the cellular response to cytokines with anti-tumor activity. Mol Cancer. 2010 Jun 25;9:165.
- [2]. Lin L, et al. Novel STAT3 phosphorylation inhibitors exhibit potent growth-suppressive activity in pancreaticand breast cancer cells. Cancer Res. 2010 Mar 15;70(6):2445-54.
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Caution: Product has not been fully validated for medical applications. For research use only.

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