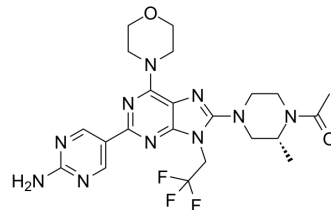


DS-7423

Cat. No.:	HY-124036		
CAS No.:	1222104-37-1		
Molecular Formula:	C ₂₂ H ₂₇ F ₃ N ₁₀ O ₂		
Molecular Weight:	520.51		
Target:	PI3K; mTOR		
Pathway:	PI3K/Akt/mTOR		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (192.12 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.9212 mL	9.6060 mL	19.2119 mL
5 mM	0.3842 mL	1.9212 mL	3.8424 mL
10 mM	0.1921 mL	0.9606 mL	1.9212 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.80 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.80 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DS-7423 is a dual PI3K and mTOR inhibitor, with IC₅₀ values of 15.6 nM, 34.9 nM for PI3K α and mTOR, respectively. DS-7423 possesses anti-tumor activity^{[1][2]}.

In Vitro

DS-7423 increases TP53 expression, the level of p-TP53 on Ser-46, and induced apoptosis-related TP53 target genes (TP53AIP1 and PUMA) in OCCC cells^[1].
DS-7423 also inhibits other isoforms of class I PI3K (IC₅₀ values: PI3K β = 1,143 nM; PI3K γ = 249 nM; PI3K δ = 262 nM)^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Katsutoshi Oda, et al. Characterization of TP53 and PI3K signaling pathways as molecular targets in gynecologic malignancies. J Obstet Gynaecol Res. 2016 Jul;42(7):757-62.

[2]. Tomoko Kashiya, et al. Antitumor activity and induction of TP53-dependent apoptosis toward ovarian clear cell adenocarcinoma by the dual PI3K/mTOR inhibitor DS-7423. PLoS One. 2014 Feb 4;9(2):e87220.

Caution: Product has not been fully validated for medical applications. For research use only.

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