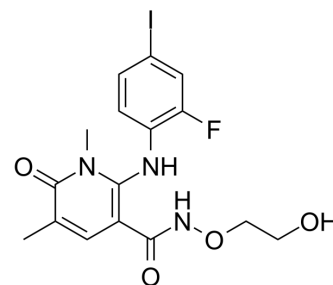


AZD8330

Cat. No.:	HY-12058		
CAS No.:	869357-68-6		
Molecular Formula:	C ₁₆ H ₁₇ FIN ₃ O ₄		
Molecular Weight:	461.23		
Target:	MEK		
Pathway:	MAPK/ERK Pathway		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (216.81 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.1681 mL	10.8406 mL	21.6812 mL
	5 mM		0.4336 mL	2.1681 mL	4.3362 mL
	10 mM		0.2168 mL	1.0841 mL	2.1681 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: ≥ 3.25 mg/mL (7.05 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 3.25 mg/mL (7.05 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 3.25 mg/mL (7.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AZD8330 (ARRY-424704) is a potent, uncompetitive MEK1/MEK2 inhibitor, with an IC₅₀ of 7 nM.

IC₅₀ & Target

MEK1 7 nM (IC ₅₀)	MEK2 7 nM (IC ₅₀)
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In Vitro

AZD8330 is a selective allosteric MEK1/ MEK2 inhibitor. Exposing human osteosarcoma cell lines MOS, U2OS, and 143B to a

concentration of 0.5 μ M of Trametinib, AZD8330 or TAK-733 for 6 hours, leads to loss of ERK phosphorylation indicating effective MEK inhibition. The activity of these three inhibitors is tested using concentration ranges in six osteosarcoma cell lines: MOS, U2OS, KPD, ZK58, 143b and Saos-2. All three inhibitors decrease viability of MOS and U2OS and strongly affect 143b. By contrast, viability of KPD, ZK58 and Saos-2 is not affected by any of the three inhibitors^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

In tumour xenograft models, AZD8330 demonstrates dose-dependent tumour growth inhibition of approximately 90% at tolerated doses (1.0 mg/kg once daily [OD])^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[2]

Human osteosarcoma cell lines MOS, U2OS, 143B, ZK58, KPD and Saos-2 are grown in RPMI1640 medium supplemented with 10% fetal bovine serum and 25 U/mL Penicillin and 25 μ g/mL of Penicillin-Streptomycin. All cells are cultured in a humidified incubator at 37°C with 5% CO₂. Dose response curves for Trametinib, AZD8330 (10 nM, 100 nM, and 1 μ M) and TAK-733 in 6 osteosarcoma cell lines as indicated. Cells are exposed for 72 hours. Cells are processed using the ATPlite 1Step kit, followed by luminescence measurement on a plate reader^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Res. 2018 Dec;28(12):1171-1185.
- Sci Transl Med. 2018 Jul 18;10(450):eaaq1093.
- Clin Cancer Res. 2014 Nov 1;20(21):5483-95.
- Glia. 2019 Jul;67(7):1320-1332.
- Viruses. 2022 Nov 8;14(11):2466.

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REFERENCES

- [1]. Cohen RB, et al. A phase I dose-finding, safety and tolerability study of AZD8330 in patients with advanced malignancies. Eur J Cancer. 2013 May;49(7):1521-9.
- [2]. Baranski Z, et al. MEK inhibition induces apoptosis in osteosarcoma cells with constitutive ERK1/2 phosphorylation. Genes Cancer. 2015 Nov;6(11-12):503-12.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA