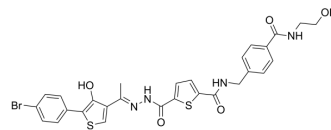


TA-316

Cat. No.:	HY-112486		
CAS No.:	1429321-13-0		
Molecular Formula:	C ₂₈ H ₂₅ BrN ₄ O ₅ S ₂		
Molecular Weight:	641.56		
Target:	Cyclin G-associated Kinase (GAK)		
Pathway:	Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (77.94 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.5587 mL	7.7935 mL	15.5870 mL
5 mM	0.3117 mL	1.5587 mL	3.1174 mL
10 mM	0.1559 mL	0.7794 mL	1.5587 mL

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

BIOLOGICAL ACTIVITY

Description

TA-3166 (Megakaryocytes/platelets inducing agent) is a novel chemically synthesized c-MPL agonist (CMA) and thrombopoietin (TPO) receptor agonist. TA-316 enhances ex vivo platelet generation from human-induced pluripotent stem (iPS) cells^{[1][2]}.

In Vitro

TA-316 (0.01-1000 nM; 4 days) stimulates UT-7/TPO and Ba/F3-HuMpl cells proliferation, with the EC₅₀ values of 0.3 and 0.65 nM, respectively^[2].

?TA-316 (800 nM; 10 days) promotes biased megakaryopoiesis and upregulated MK lineage markers^[2].

?TA-316 (200 nM; 4 days) preferentially enhances VEGFA and FGF2 expression^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[2]

Cell Line: UT-7/TPO and Ba/F3-HuMpl cells

Concentration: 0.01-1000 nM

Incubation Time:	4 days
Result:	Stimulated UT-7/TPO and Ba/F3-HuMpl cell proliferation.

REFERENCES

- [1]. METHOD FOR PRODUCING MEGAKARYOCYTES AND/OR PLATELETS FROM PLURIPOTENT STEM CELLS.WO2013051625A1.
- [2]. Aihara A, et al. Novel TPO receptor agonist TA-316 contributes to platelet biogenesis from human iPS cells. Blood Adv. 2017;1(7):468-476. Published 2017 Feb 28.
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Caution: Product has not been fully validated for medical applications. For research use only.

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