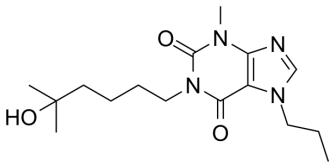
A-802715

Cat. No.:	HY-U00142
CAS No.:	107767-58-8
Molecular Formula:	$C_{16}H_{26}N_4O_3$
Molecular Weight:	322.4
Target:	Others
Pathway:	Others

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 : 190 mg/mL (589.33 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.1017 mL	15.5087 mL	31.0174 mL
5 mM	0.6203 mL	3.1017 mL	6.2035 mL
10 mM	0.3102 mL	1.5509 mL	3.1017 mL

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: ≥ 7.5 mg/mL (23.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 7.5 mg/mL (23.26 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 7.5 mg/mL (23.26 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

A802715 is a methylxanthine derivative. A802715 has a TD_{50} (toxic dose of 50%) of 0.9-1.1 mM.

In Vitro

The toxicity of the methylxanthine derivative A802715 is determined against the two human melanoma lines, Be11 and MeWo, and against the two human squamous cell carcinoma lines, 4197 and 4451, by vital dye staining assay. A802715 has a TD_{50} of 0.9-1.1 mM and is the most toxic. In p53 wt cells BrdU incorporations show that the irradiation-induced suppression of S-phase entry is strongly enhanced by A802715. A802715 prolongs the G_2/M block or remain ineffective depending on the p53 status of the cell line[1].

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

PROTOCOL

Cell Assay [1]

DNA analysis is performed using a FACScan flow cytometer emitting a 488 nm beam. Red fluorescence from PI emission is collected as a linear signal through a 600 nm bandpass filter and recorded as a measure of total DNA content. Processing the red fluorescence into height, area and width (doublet discrimination mode) eliminated cell doublets. Data are collected in list mode and 10000 events are recorded per sample and displayed as a frequency distribution histogram. Estimates of the percentages of cells in the different periods of postirradiation incubation with marker statistics reveal the time at which the G_2/M block is maximally expressed. These times are used for each cell line as a starting point at which the methylxanthine drugs were added. Cell debris, nuclei doublets and triplets were excluded by gating[1].

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

REFERENCES

[1]. Bohm L, et al. Influence of pentoxifylline, A-802710, propentofylline and A-802715 (Hoechst) on the expression of cell cycle blocks and S-phase content after irradiation damage. Biochim Biophys Acta. 2000 Dec 11;1499(1-2):1-10.

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