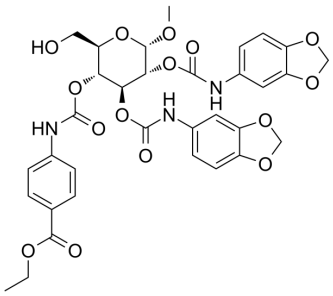
BRD7552

Cat. No.:	HY-19694		
CAS No.:	1137359-47-7		
Molecular Formula:	$C_{33}H_{33}N_3O_{15}$		
Molecular Weight:	711.63		
Target:	Others		
Pathway:	Others		
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 : ≥ 38 mg/mL (53.40 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	1.4052 mL	7.0261 mL	14.0522 mL
	5 mM	0.2810 mL	1.4052 mL	2.8104 mL
	10 mM	0.1405 mL	0.7026 mL	1.4052 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: ≥ 2.5 mg/mL (3.51 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BRD7552, a potent PDX1 transcription factor inducer, upregulates PDX1 expression in both primary human islets and ductal cells, and induces epigenetic changes in the PDX1 promoter consistent with transcriptional activation. BRD7552 increases insulin expression. PDX1 is a key transcription factor involved in pancreas development and β cell function[1].

In Vitro

BRD7552 (0-5 μM; 5 days) induces a dose-dependent increase in PDX1 protein levels after BRD7552 treatment in PANC-1 cells [1].

BRD7552 acts in a FOXA2-dependent manner to increase PDX1 expression in human ductal cells. Nine-day treatment of PANC-1 cells with BRD7552 (0-10 μM) causes a dose-dependent increase in insulin mRNA expression. BRD7552 induces insulin expression in PANC-1 cells. BRD7552 increases H3 acetylation and H3K4me3 and decreases H3K9me3, results that are

consistent with transcriptional activation of PDX1. The epigenetic changes induced by BRD7552 are consistent with transcriptional activation, and BRD7552 acts in a FOXA2-dependent manner[1].

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

Western Blot Analysis[1]

Cell Line:	PANC-1 cells
Concentration:	1.25, 2.5, 5 μM
Incubation Time:	5 days
Result:	Induced a dose-dependent increase in PDX1 protein levels.

REFERENCES

[1]. Yuan Y, et al. A small-molecule inducer of PDX1 expression identified by high-throughput screening [published correction appears in Chem Biol. 2014 Feb 20;21(2):306]. Chem Biol. 2013;20(12):1513-1522.

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