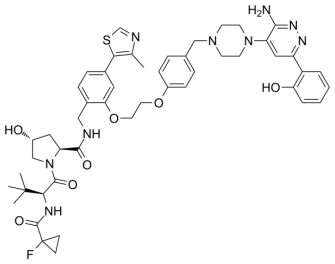
ACBI1

Cat. No.:	HY-128359
CAS No.:	2375564-55-7
Molecular Formula:	$C_{49}H_{58}FN_9O_7S$
Molecular Weight:	936.1
Target:	PROTACs; Epigenetic Reader Domain; Apoptosis
Pathway:	PROTAC; Epigenetics; Apoptosis
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (106.83 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.0683 mL	5.3413 mL	10.6826 mL
	5 mM	0.2137 mL	1.0683 mL	2.1365 mL
	10 mM	0.1068 mL	0.5341 mL	1.0683 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 (2.67 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (2.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ACBI1 is a potent and cooperative SMARCA2, SMARCA4 and PBRM1 degrader with DC_{50}s of 6, 11 and 32 nM, respectively. ACBI1 is a PROTAC degrader. ACBI1 shows anti-proliferative activity. ACBI1 induces apoptosis[1].

IC_{50} & Target

DC_{50}: 6 nM (SMARCA2), 11 nM (SMARCA4), 32 nM (PBRM1)[1]

In Vitro

ACBI1 (1-10000 nM☒ 3-7 days) shows anti-proliferative activity[1].
ACBI1 (0.3 μM; 100 h) induces apoptosis in SK-MEL-5 cells[1].
ACBI1 is composed of a bromodomain ligand, a linker, and the E3 ubiquitin ligase von Hippel-Lindau[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	MV-4-11, NCI-H1568 cells
Concentration:	0-1000 nM
Incubation Time:	3-7 days
Result:	Showed anti-proliferative activity with IC_{50} of 29, 68 nM for MV-4-11, NCI-H1568 cells, respectively.

Apoptosis Analysis[1]

Cell Line:	SK-MEL-5 cells
Concentration:	0.3 μM
Incubation Time:	100 h
Result:	Induced apoptosis in SK-MEL-5 cells.

CUSTOMER VALIDATION

- Nat Commun. 2022 Nov 28;13(1):7159.
- Oncogenesis. 2022 Jun 1;11(1):30.

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REFERENCES

[1]. Farnaby W, et al. BAF complex vulnerabilities in cancer demonstrated via structure-based PROTAC design. Nat Chem Biol. 2019 Jul;15(7):672-680.

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