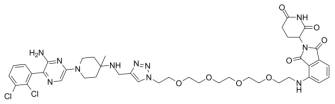
SHP2 protein degrader-1

Cat. No.:	HY-145159
CAS No.:	2624181-69-5
Molecular Formula:	$C_{42}H_{51}Cl_2N_{11}O_8$
Molecular Weight:	908.83
Target:	PROTACs; Phosphatase; Apoptosis
Pathway:	PROTAC; Metabolic Enzyme/Protease; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SHP2 protein degrader-1 is a potent allosteric inhibitor of SHP2. SHP2 protein degrader-1 induces SHP2 degradation and cell apoptosis. SHP2 protein degrader-1 has the potential for researching SHP2 related diseases[1].
IC_{50} & Target	SHP2[1]
In Vitro	SHP2 protein degrader-1 (compound SP4) (0-200 μM; 24 hours) inhibits the growth of Hela cells, with IC_{50} of 5.77 and 4.30 nM, respectively, which are about 100 times higher than the activity of SHP099 (SHP2 inhibitor)[1]. SHP2 protein degrader-1 (compound SP4) (0-200 μM; 96 hours) induces 54.01% apoptotic death compared with 0.13% of the control at 100 nM[1]. SHP2 protein degrader-1 (compound SP4) (0-200 μM; 96 hours) induces cell cycle arrested at the G1 phase in Hela cells[1]. SHP2 protein degrader-1 (compound SP4) (0-200 μM; 96 hours) significantly inhibits the phosphorylation of JNK, Erk and p38[1]. SHP2 protein degrader-1 (compound SP4) (0-200 μM; 96 hours) inhibits RAS/MAPK signaling and cellular responses by a mechanism involving inhibition of SHP2 catalytic activity[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Hela cells
Concentration:	0-200 μM
Incubation Time:	24 hours
Result:	Strongly inhibited the growth of Hela cells, with IC_{50} of 5.77 and 4.30 nM, respectively, which were about 100 times higher than the activity of SHP099 (SHP2 inhibitor).

Apoptosis Analysis[1]

Cell Line:	Hela cells
Concentration:	0-100 μM
Incubation Time:	96 hours
Result:	Induced 54.01% apoptotic death compared with 0.13% of the control at 100 nM. While

	SHP099 at 1000 nM could induce 33.74% apoptotic death compared with 0.13% of the control.

Cell Cycle Analysis[1]

Cell Line:	Hela cells
Concentration:	0-100 μM
Incubation Time:	96 hours
Result:	Induced cell cycle arrested at the G1 phase in Hela cells.

Western Blot Analysis[1]

Cell Line:	Hela cells
Concentration:	0-100 μM
Incubation Time:	96 hours
Result:	Significantly inhibited the phosphorylation of JNK, Erk and p38.

REFERENCES

[1]. Zheng M, et al. Novel PROTACs for degradation of SHP2 protein. Bioorg Chem. 2021;110:104788.

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