D-3

Cat. No.:	HY-P2286
CAS No.:	1967815-98-0
Molecular Formula:	$C_{48}H_{47}N_4O_{10}P$
Molecular Weight:	870.88
Target:	Phosphatase
Pathway:	Metabolic Enzyme/Protease
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

BIOLOGICAL ACTIVITY

Description	D-3, a phosphorpeptide, is an efficient, simple, and specific iPSC-eliminating agent[1].
In Vitro	D-3 prevents residual iPSC-induced teratoma formation in a mouse tumorigenicity assay[1]. D-3 induces obvious loss of viability in 201B7 cells, with half maximal inhibitory concentration value of 192.3 ± 57.4 μM[1]. D-3 induces an increase in the amount of activated elF2a, p38, and p44/42 MAPK, whichare activated in response to cellular stress. D-3 also increases the number of Annexin-V and SYTOX-positive cells, indicating apoptotic and dead cells after D-3 treatment[1]. D-3 has little influence on various non-iPSCs, including hepatocytes and neurons[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Six human iPSCs lines and one human ESC line (khES1).
Concentration:	400 μM.
Incubation Time:	1-2 h.
Result:	Sufficient to induce a viability loss (>99% in all iPSC lines and >95% in khES1).

REFERENCES

[1]. Yi Kuang, et al. Efficient, Selective Removal of Human Pluripotent Stem Cells via Ecto-Alkaline Phosphatase-Mediated Aggregation of Synthetic Peptides. Cell Chem Biol. 2017 Jun 22;24(6):685-694.e4.

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