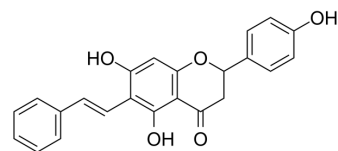


6-CEPN

| | | | |
|---------------------------|--|-------|----------|
| Cat. No.: | HY-114569 | | |
| CAS No.: | 1054549-73-3 | | |
| Molecular Formula: | C ₂₃ H ₁₈ O ₅ | | |
| Molecular Weight: | 374.39 | | |
| Target: | Ras; Cyclin G-associated Kinase (GAK); Autophagy | | |
| Pathway: | GPCR/G Protein; MAPK/ERK Pathway; Cell Cycle/DNA Damage; Autophagy | | |
| 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 : 100 mg/mL (267.10 mM; Need ultrasonic) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 1 mM | 2.6710 mL | 13.3551 mL | 26.7101 mL |
| | | 5 mM | 0.5342 mL | 2.6710 mL | 5.3420 mL |
| | | 10 mM | 0.2671 mL | 1.3355 mL | 2.6710 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 (6.68 mM); Clear solution; Need ultrasonic 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (6.68 mM); Clear solution; Need ultrasonic | | | | |

BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|---|
| Description | 6-CEPN is a RAS inhibitor. 6-CEPN can inhibit RAS activation by binding to Icmt binding sites. 6-CEPN has anticancer activity. 6-CEPN can block cancer cells in the G1 phase. 6-CEPN can induce autophagy and necrosis of Cancer cells (Icmt: isovalerylcytisine carboxymethyltransferase) ^[1] . |
| IC₅₀ & Target | P21 ^[1] . |
| In Vitro | 6-CEPN (10-100 μM, 24 h) decreases cell activity in a dose-dependent manner in SW620, SW480, HCT116 and HT29 cells, and a can resist cell proliferation ^[1] . 6-CEPN (10 μM, 24 h) can block the cell cycle in G1 phase in SW620 and HCT116 cells ^[1] . 6-CEPN (10 μM, 24 h) induces cell necrosis in SW620 and HCT116 cells ^[1] . |

6-CEPN (2.5-10 μ M, 24 h) induces autophagy and cell death of colon cancer cells by inhibiting RAS activation in SW620 and HCT116 cancer cells^[1].

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

Cell Cycle Analysis^[1]

| | |
|------------------|--|
| Cell Line: | SW620, HCT116 |
| Concentration: | 10 μ M |
| Incubation Time: | 24 h |
| Result: | Increased protein levels of p21 and decreased protein levels of p-Rb and cyclin D1 (P21, p-Rb, cyclin D1 are cell cycle regulator associated with G1 phase). |

Cell Autophagy Assay^[1]

| | |
|------------------|--|
| Cell Line: | SW620, HCT116 |
| Concentration: | 2.5 μ M, 5 μ M, 10 μ M |
| Incubation Time: | 24 h |
| Result: | Resulted in the formation of red fluorescent acidic vesicular organelles and MDC-labelled particles (Key features of autophagy). Increased the level of LC3 protein expression in cells and autophagy occurred. |

Western Blot Analysis^[1]

| | |
|------------------|--|
| Cell Line: | SW620, HCT116 |
| Concentration: | 2.5 μ M, 5 μ M, 10 μ M |
| Incubation Time: | 24 h |
| Result: | Significantly inhibited the phosphorylation of C-raf, ERK, AKT and mTOR, while had no significant effect on the levels of total C-raf, ERK, AKT and mTOR. Inhibited RAS activation. Strongly inhibited the activity of IcmT. |

Cell Viability Assay^[1]

| | |
|------------------|--------------------------------------|
| Cell Line: | SW620, HCT116 |
| Concentration: | 10 μ M |
| Incubation Time: | 24 h |
| Result: | Reduced cell viability by about 60%. |

REFERENCES

[1]. Zhao Y, et al. 6-C-(E-phenylethenyl)naringenin induces cell growth inhibition and cytoprotective autophagy in colon cancer cells[J]. European journal of cancer: official journal for European Organization for Research and Treatment of Cancer (EORTC) [and] European Association for Cancer Research (EACR), 2016, 68(Null).

Caution: Product has not been fully validated for medical applications. For research use only.

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