

C-Phycocyanin

Chemical Properties

CAS No.:	11016-15-2
Formula:	N/A
Molecular Weight:	N/A
Appearance:	lyophilized powder
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	C-Phycocyanin is a water-soluble protein pigment that is also used as a nutrient supplement for human beings.
Targets(IC ₅₀)	Others: None
In vitro	For the combination experiments, when cells treated with All-trans retinoic acid (ATRA) combined with C-phycocyanin, the IC ₅₀ value is lower than that in the ATRA group. But under the same IC ₅₀ , the more C-phycocyanin is used, the less ATRA is needed. C-phycocyanin combined with ATRA can significantly decrease the CDK-4 mRNA level (P<0.05). The combination index (CI) value of the C-phycocyanin+ATRA combination group is 0.852 which is less than 1, indicating that the two drugs are synergetic under the action concentration (88 µg/L C-phycocyanin+0.102 mM ATRA). The expression of caspase-3 in the C-phycocyanin group is more than that in the control group but is similar to that in the ATRA group, whereas the expression in the combination group is maximum.
In vivo	Compare with the control group, the average tumor weights of mice in solely C-phycocyanin or ATRA treatment groups are significantly decreased, and further reduced in the C-phycocyanin+ATRA synergy group. Single C-phycocyanin can increase the spleen weight of mice but the effects of ATRA are just the opposite. C-phycocyanin can also promote the growth of immune organs in mice and increase the body's immune function. C-phycocyanin and ATRA alone can significantly inhibit Cyclin D1 expression, and when being combined, the inhibitory effect is more obvious.

Solubility Information

Solubility	H ₂ O: 14.29 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Li B, et al. The synergistic antitumor effects of all-trans retinoic acid and C-phycocyanin on the lung cancer A549 cells in vitro and in vivo. Eur J Pharmacol. 2015 Feb 15;749:107-14.

Inhibitors · Natural Compounds · Compound Libraries

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