

Antioxidant peptide A

Chemical Properties

CAS No.:	TP1869
Formula:	C31H54N12O7S2
Molecular Weight:	770.97
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Antioxidant peptide A is a short peptide, which contains alternative aromatic or sulfur-containing amino acid.
In vitro	The effects of 10-100 μ M of Antioxidant peptide A (Pep-A) concentrations are studied on the superoxide dismutase (SOD) enzyme activity. The enzyme activity decreases by 0.5 and 0.7-folds at 10 and 50 μ M Antioxidant peptide A concentrations, respectively, and increases by 1.79-folds at 100 μ M Antioxidant peptide A treatment, indicating that this concentration can be ideal for the treatment on Y79 a, RB cells. Furthermore, the Antioxidant peptide A can be involved in decreasing the ROS by increasing the antioxidant enzyme activity. A similar increase in the antioxidative enzyme levels in the presence of Hoki skin antioxidative peptide in hepatocarcinoma cells is attributed to the peptide's role in maintaining the redox balance in the cellular environment. Cell viability alysis results show that the Antioxidant peptide A shows no toxicity to cancerous (Y79) cells and non-cancerous cells even after 48 h of treatment. The Y79 RB cell viability ranges between 115 and 157 % and 111-126 % after 24 and 48 h of exposures with Antioxidant peptide A, respectively. The cancer cell death from the treatment of 10-100 μ M GNPs concentration is studied[1].

Solubility Information

Solubility	H2O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.297 mL	6.485 mL	12.971 mL
5 mM	0.259 mL	1.297 mL	2.594 mL
10 mM	0.13 mL	0.649 mL	1.297 mL
50 mM	0.026 mL	0.13 mL	0.259 mL

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. Kalmodia S, et al. Bio-conjugation of antioxidant peptide on surface-modified gold nanoparticles: a novel approach to enhance the radical scavenging property in cancer cell. Cancer Nanotechnol. 2016;7:1.

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