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- Expressversand

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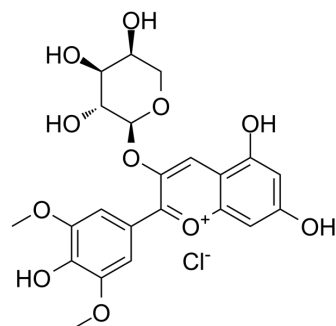
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Malvidin-3-O-arabinoside chloride

Cat. No.:	HY-N9349
CAS No.:	28500-04-1
Molecular Formula:	C ₂₂ H ₂₃ ClO ₁₁
Molecular Weight:	498.86
Target:	AMPK; Autophagy
Pathway:	Epigenetics; PI3K/Akt/mTOR; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Malvidin-3-O-arabinoside chloride ameliorates ethyl carbamate-induced oxidative damage by stimulating AMPK-mediated autophagy ^[1] .								
In Vitro	<p>Malvidin-3-O-arabinoside chloride (M3A chloride, 50-400 μM) pretreatment remarkably upregulates LAMP-1 expression, which indicates elevated lysosomal mass. M3A also successfully restores lysosomal acidity and subsequently strengthens lysosomal functions. M3A stimulates phosphorylation of AMP-activated protein kinase (AMPK), a master regulator of autophagy^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Autophagy Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Caco-2 cell line.</td> </tr> <tr> <td>Concentration:</td> <td>50, 100, 200 and 400 μM.</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h (then treated with or without 10 μM chloroquine (CQ) for another 1 h).</td> </tr> <tr> <td>Result:</td> <td> <p>Notably inhibited excess ROS generation.</p> <p>200 μM and 400 μM M3A pretreatment significantly enhanced 14% and 16% of GSH level.</p> <p>Enhanced autophagy flux.</p> <p>Significantly up-regulate the LC3-II/LC3-I ratio.</p> </td> </tr> </table>	Cell Line:	Caco-2 cell line.	Concentration:	50, 100, 200 and 400 μ M.	Incubation Time:	24 h (then treated with or without 10 μ M chloroquine (CQ) for another 1 h).	Result:	<p>Notably inhibited excess ROS generation.</p> <p>200 μM and 400 μM M3A pretreatment significantly enhanced 14% and 16% of GSH level.</p> <p>Enhanced autophagy flux.</p> <p>Significantly up-regulate the LC3-II/LC3-I ratio.</p>
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REFERENCES

[1]. Yuting Li, et al. Malvidin-3-O-arabinoside ameliorates ethyl carbamate-induced oxidative damage by stimulating AMPK-mediated autophagy. Food Funct. 2020 Dec 1;11(12):10317-10328.

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

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