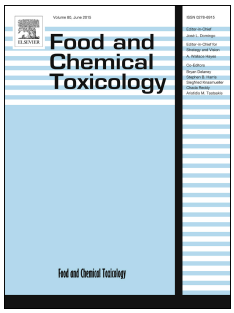
Accepted Manuscript



A transcriptomic analysis of black cohosh: Actein alters cholesterol biosynthesis pathways and synergizes with simvastatin

Linda Saxe Einbond, Morando Soffritti, Davide Degli Esposti, Hsan-au Wu, Michael Balick, Hongbao Ma, Stephen Redenti, Alan Roter

PII: S0278-6915(18)30438-1

DOI: 10.1016/j.fct.2018.06.064

Reference: FCT 9885

To appear in: *Food and Chemical Toxicology*

Received Date: 5 February 2018

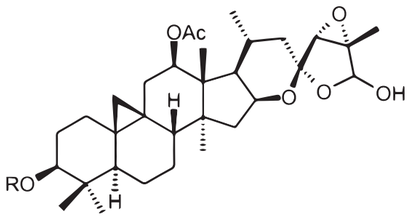
Revised Date: 8 June 2018

Accepted Date: 30 June 2018

Please cite this article as: Einbond, L.S., Soffritti, M., Esposti, D.D., Wu, H.-a., Balick, M., Ma, H., Redenti, S., Roter, A., A transcriptomic analysis of black cohosh: Actein alters cholesterol biosynthesis pathways and synergizes with simvastatin, *Food and Chemical Toxicology* (2018), doi: 10.1016/j.fct.2018.06.064.

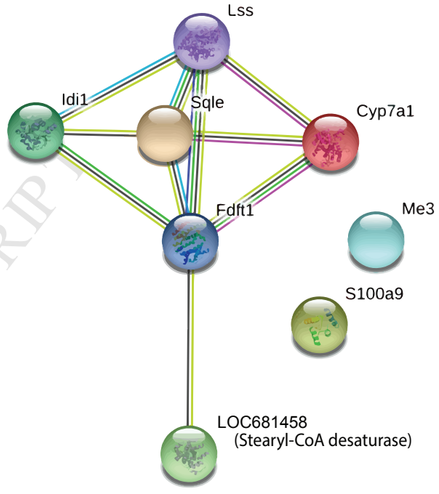
Black cohosh (*Actaea racemosa*)

photograph by Valérie Chansigaud
distributed under a CC BY-SA 3.0 license



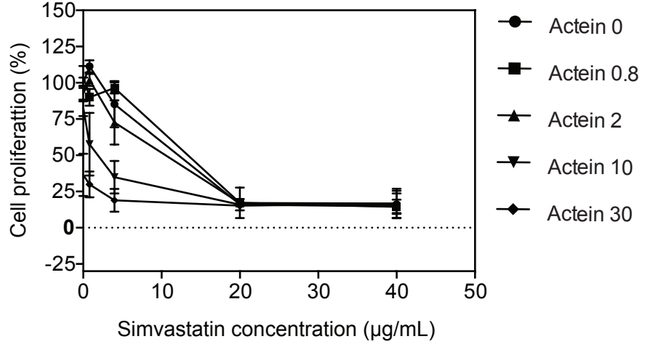
Structure of actein

Rat → Rat liver tissue → Gene expression analysis



Actein modulates:
1. lipid biosynthesis
2. the inflammatory response and cell signaling

Colon cancer cells + Simvastatin →



Actein synergizes with simvastatin