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A remarkably simple and convergent partial synthesis of pomolic acid

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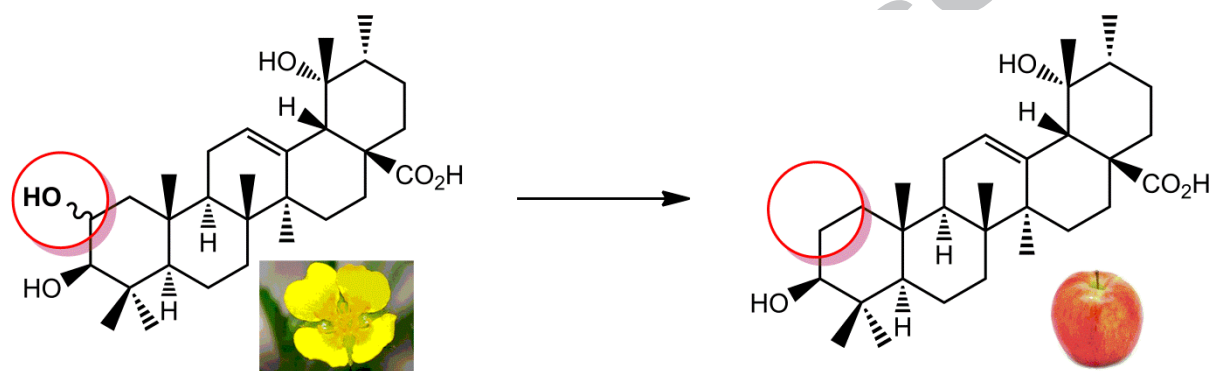
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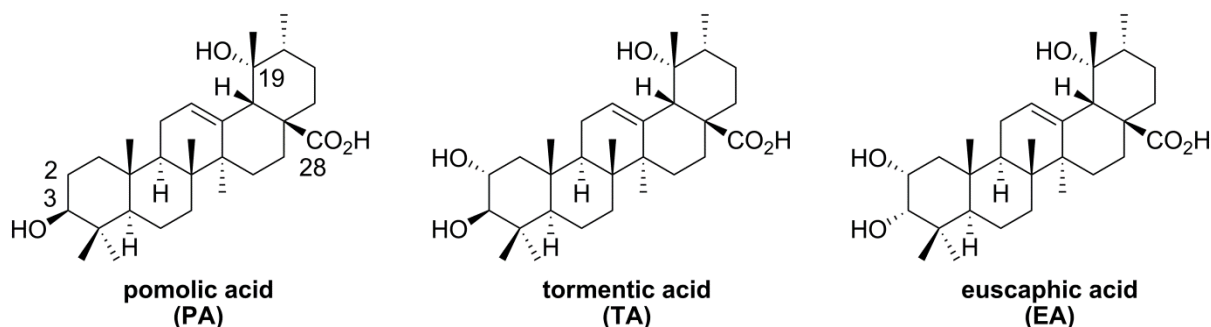
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Graph abstract



The daily consumption of vegetables and fruits seems to have a positive impact on health. This finding is supported by epidemiological studies correlating the consumption of this foodstuff with a lowered risk of developing cardiovascular diseases and cancer.¹⁻⁶ While the over-all risk of getting a cardiovascular disease can be reduced by a variety of known changes in personal lifestyle, the prevention of cancer and its treatment remains difficult, since the high mortality of cancer is often due to metastasis.⁷

Migration of cancer cells has been associated with CXC chemokine receptor type 4 (CXCR4) signaling,⁸⁻¹⁰ and the development of CXCR4 inhibitors is an alternative to classical treatment of cancer by chemotherapy. Quite recently, pomolic acid (**PA**, Fig. 1) was identified as a novel inhibitor of CXCR4.⁷ In addition, **PA** triggered apoptosis in human ovarian cancer cells,¹¹ and it inhibited the growth of K562 leukemia cells.¹²⁻¹⁴



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