

[Open Peer Review on Qeios](#)

Vaccinium myrtillus/Macleaya cordata/Echinacea angustifolia Extract Granules

National Cancer Institute

Source

National Cancer Institute. *Vaccinium myrtillus/Macleaya cordata/Echinacea angustifolia Extract Granules*. NCI Thesaurus. Code C102748.

A proprietary suspension formulation prepared from granules of standardized extracts from the fruits of *Vaccinium myrtillus*, the aerial parts of *Macleaya cordata* and the roots of *Echinacea angustifolia*, with potential anti-mucositis, anti-inflammatory, and analgesic activities. The main active ingredients of this formulation include anthocyanosides and procyanidins, benzophenanthridinic alkaloids, and alkylamides from *V. myrtillus*, *M. cordata* and *E. angustifolia* extracts, respectively. Upon administration in the mucosal cavity, the anthocyanosides scavenge free radicals, form a protective barrier on the mucosa, and protect the integrity of the capillary vessels; the benzophenanthridine alkaloids prevent the production of pro-inflammatory cytokines by inhibiting NF-κB and may halt the growth of microorganisms; the alkylamides inhibit cyclooxygenase and 5-lipoxygenase thereby blocking productions of prostaglandin and leukotriene. Furthermore, alkylamides modulate the expression of tumor necrosis factor alpha and other cytokines involved in inflammation processes through cannabinoid type 2 receptors and as cannabinomimetics they may also exert analgesic activity.