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Picropodophyllin

National Cancer Institute

Source

National Cancer Institute. *Picropodophyllin*. NCI Thesaurus. Code C87736.

A cyclolignan alkaloid found in the mayapple plant family (*Podophyllum peltatum*), and a small molecule inhibitor of the insulin-like growth factor 1 receptor (IGF1R) with potential antineoplastic activity. Picropodophyllin specifically inhibits the activity and downregulates the cellular expression of IGF1R without interfering with activities of other growth factor receptors, such as receptors for insulin, epidermal growth factor, platelet-derived growth factor, fibroblast growth factor and mast/stem cell growth factor (KIT). This agent shows potent activity in the suppression of tumor cell proliferation and the induction of tumor cell apoptosis. IGF1R, a receptor tyrosine kinase overexpressed in a variety of human cancers, plays a critical role in the growth and survival of many types of cancer cells.