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# Mosedipimod

National Cancer Institute

## Source

National Cancer Institute. *Mosedipimod*. NCI Thesaurus. Code C123775.

A synthetic version of a monoacetyldiacylglyceride naturally occurring in various seed oils, bovine udder and milk fat, antlers of sika deer, with potential antineoplastic activity. Although the exact mechanism of action through which EC-18 exerts its pharmacological effect has yet to be fully identified, upon administration, mosedipimod stimulates calcium influx into T-lymphocytes and increases the production of various cytokines, including interleukin (IL) -2, IL-4, IL-12, interferon-gamma (IFN-g), and granulocyte-macrophage colony-stimulating factor (GM-CSF). This stimulates the proliferation of hematopoietic stem cells, bone marrow stromal cells and immune cells, including T- and B-lymphocytes, dendritic cells (DCs) and macrophages. Therefore, EC18 may stimulate the immune system to target cancer cells. In addition, EC-18 enhances the cytolytic activity of natural killer (NK) cells and suppresses the expression of the transmembrane protein tumor cell toll-like receptor 4 (TLR-4) on cancer cells. As activation of TLR-4 enhances immunosuppression and stimulates cancer cell growth, blocking TLR-4 expression suppresses tumor cell proliferation.