Biochanin A is an isoflavone/flavonoid found in plants in the Fabaceae family, such as clover, soy, and alfalfa. Biochanin A exhibits anticancer, anti-metastatic, estrogenic, neuroprotective, anti-osteoporotic, antiviral, and anti-inflammatory activities. Biochanin A may activate PPARα and PPARγ. In pancreatic cancer cells, biochanin A inhibits cellular proliferation, migration, and invasion, and suppresses activation of Akt and MAPKs. In other cellular models, biochanin A acts as a phytoestrogen and increases expression of ERβ. Biochanin A also improves cognitive deficits in animal models of Alzheimer’s disease. In stem cells, this compound inhibits adipocyte differentiation and increases osteoblast differentiation. Additionally, biochanin A inhibits replication of influenza virus and suppresses production of IL-6, IL-8, IL-10, and TNF-α in vitro.

References