Etoposide is a derivative of epipodophyllotoxin that acts as an anticancer chemotherapeutic and immunomodulatory compound, inhibiting DNA topoisomerase II and preventing DNA repair. In breast cancer cells, etoposide increases phosphorylation of p38 MAPK and CHK2 and decreases expression of fragile histidin triad (FHIT), causing cell death. In hepatoma cells, etoposide induces mixed modes of programmed cell death, including both autophagy and apoptosis. In leukemia cells, etoposide increases transcription of PKCδ. Etoposide is also used to treat hemophagocytic lymphohistiocytosis (HLH), in which it decreases release of pro-inflammatory cytokines and inhibits activated T cells, increasing survival rates.

Semi-synthetic material. Epipodophyllotoxin from podophyllum versipelle Hance.

References


Caution: This product is intended for laboratory and research use only. It is not for human or drug use.