Fludarabine is a purine nucleoside analog of adenosine that exhibits anti-inflammatory, immunosuppressive, and anticancer chemotherapeutic activities. Fludarabine is clinically used to treat acute myelogenous leukemia (AML), chronic lymphocytic leukemia (CLL), and other lymphoid malignancies. Fludarabine is also used to prevent graft-versus-host disease (GVHD) during hematopoietic stem cell transplantation. Fludarabine is incorporated into DNA and RNA, inhibiting ribonucleotide reductase, DNA polymerase, DNA ligase, and DNA primase, preventing DNA repair and synthesis. In Jurkat T cells, fludarabine inhibits TNF-α-stimulated production of IL-2 and IFN-γ and degradation of IκB kinase, inhibiting activity of NF-κB. In other in vitro models, fludarabine induces apoptosis and inhibits cell growth. Additionally, this compound binds and activates A1 adenosine receptors.

References


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