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B43-PAP Immunotoxin

National Cancer Institute

Source

National Cancer Institute. *B43-PAP Immunotoxin*. NCI Thesaurus. Code C2331.

A mouse-derived anti-human CD19 monoclonal antibody linked to pokeweed (*Phytolacca americana*) antiviral protein (PAP) with antileukemic activity. The monoclonal antibody portion specifically binds to the CD19 antigen, a cell surface molecule normally expressed only by B lymphocytes and follicular dendritic cells, while over-expressed in B-lineage lymphocytic leukemia cells. Following internalization, PAP, a plant hemitoxin and a ribosome-inactivating protein, is cleaved from the immunoconjugate and released into the cytoplasm where it enzymatically removes a single adenine base from a conserved, surface exposed loop sequence of rRNA leading to inhibition of protein synthesis and cell growth, but not necessarily cell death.