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BRD4 Inhibitor PLX51107

National Cancer Institute

Source

National Cancer Institute. *BRD4 Inhibitor PLX51107*. NCI Thesaurus. Code C125739.

An inhibitor of the bromodomain-containing protein 4 (BRD4), with potential antineoplastic activity. Upon administration, the BRD4 inhibitor PLX51107 binds to the acetylated lysine recognition motifs in the bromodomains of the BRD4 protein, thereby preventing the binding of BRD4 to acetylated lysines on histones. This disrupts chromatin remodeling and gene expression. Prevention of the expression of certain growth-promoting genes may lead to an induction of apoptosis and an inhibition of proliferation in BRD4-overexpressing tumor cells. BRD4, a member of the human bromodomain and extra-terminal (BET) family of proteins, is a transcriptional regulator that is overexpressed in certain tumor cells and plays an important role in cellular proliferation.