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Anti-Nucleolin Aptamer AS1411

National Cancer Institute

Source

National Cancer Institute. *Anti-Nucleolin Aptamer AS1411*. NCI Thesaurus. Code C91721.

A 26-base guanine-rich oligodeoxynucleotide aptamer with potential apoptotic induction activity. Upon administration, anti-nucleolin aptamer AS1411 targets and binds to nucleolin, a nucleolar phosphoprotein which is overexpressed on the surface of certain cancer cells. Via binding to cell surface nucleolin, AS1411 is internalized and may prevent nucleolin from binding to and stabilizing mRNA of the anti-apoptotic BCL2, thereby destabilizing BCL2 mRNA, leading to a reduction in BCL2 protein synthesis. This may lead to the induction of apoptosis.