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Spherical Nucleic Acid Nanoparticle NU-0129

National Cancer Institute

Source

National Cancer Institute. *Spherical Nucleic Acid Nanoparticle NU-0129*. NCI Thesaurus. Code C131368.

A spherical nucleic acid (SNA) gold nanoparticle formulation composed of small interfering RNAs (siRNAs) targeting the Bcl-2-like protein 12 (BCL2L12) sequence and conjugated to gold nanoparticles, with potential antineoplastic activity. Upon administration of SNA NU-0129, the siRNA prevents the translation of the BCL2L12 gene. Inhibiting the expression of BCL2L12 by NU-0129 induces tumor cell apoptosis. Bcl2L12, a protein belonging to the Bcl-2 protein family, is overexpressed in glioblastoma multiforme (GBM) and plays a role in tumor cell progression and tumor cell resistance to apoptosis. NU-0129 is able to cross the blood brain barrier (BBB).