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Nucleolin Antagonist IPP-204106N

National Cancer Institute

Source

National Cancer Institute. *Nucleolin Antagonist IPP-204106N*. NCI Thesaurus. Code C103297.

A synthetic, multivalent, lysine-rich, pseudopeptide and nucleolin antagonist with potential anti-angiogenic, antineoplastic and pro-apoptotic activities. Upon administration, IPP-204106N antagonizes nucleolin leading to a downregulation of cell-surface nucleolin; preventing the binding of certain growth promoting ligands to nucleolin may suppress tumor cell proliferation and angiogenesis. In addition, IPP-204106N is able to translocate to the nucleolus and bind to nucleolar nucleolin. This prevents nucleolin from binding to and stabilizing mRNA of the anti-apoptotic Bcl2; destabilizing Bcl2 mRNA leads to a reduction in Bcl2 protein synthesis and induces apoptosis. Further, this agent can antagonize nucleophosmin. Nucleolin, a nucleolar phosphoprotein, is overexpressed on the cell surface of certain cancer cells and binds ligands involved in cell proliferation, adhesion and angiogenesis.