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Cobomarsen

National Cancer Institute

Source

National Cancer Institute. *Cobomarsen*. NCI Thesaurus. Code C124225.

A locked nucleic acid (LNA)-based oligonucleotide inhibitor of microRNA (miRNA) 155 (miR-155), with potential antineoplastic activity. Upon administration, cobomarsen targets, binds to and inhibits miR-155. This silences miR-155 and prevents the translation of certain tumor promoting genes, which leads to the induction of cancer cell apoptosis and the inhibition of tumor cell growth. miR-155, an oncogenic single-stranded, non-coding RNA that is critical to the regulation of gene expression, is overexpressed in certain tumor cell types. Up-regulation of miR-155 plays a key role in increased tumor cell proliferation and survival. The LNA is an RNA analog in which the ribose ring is locked in a particular confirmation that increases stability. Compared to the unmodified oligonucleotide, the LNA-modified oligonucleotide shows increased affinity for its target miR-155.