

## GEM-231

Cat. No.:	HY-148827
CAS No.:	255810-66-3
Sequence:	DNA, d(P-thio)(rGm-rCm-rGm-rUm-G-C-C-T-C-C-T-C-A-C-rUm-rGm-rGm-rCm)
Target:	PKA
Pathway:	Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

# GEM-231

### BIOLOGICAL ACTIVITY

#### Description

GEM231 is an 18mer antisense oligonucleotide targeting the mRNA of the PKA-I (R1 $\alpha$  regulatory subunit of cAMP dependent protein kinase type I). GEM231 induces cell growth arrest, apoptosis, and differentiation in a variety of cancer cell lines in vitro and in tumors in vivo.

### REFERENCES

- [1]. Agrawal S, Kandimalla ER, Yu D, et al. GEM 231, a second-generation antisense agent complementary to protein kinase A R1 $\alpha$  subunit, potentiates antitumor activity of irinotecan in human colon, pancreas, prostate and lung cancer xenografts. *Int J Oncol.* 2002;21(1):65-72.
- [2]. Mani S, Goel S, Nesterova M, et al. Clinical studies in patients with solid tumors using a second-generation antisense oligonucleotide (GEM 231) targeted against protein kinase A type I. *Ann N Y Acad Sci.* 2003;1002:252-262.
- [3]. Wang H, Hang J, Shi Z, et al. Antisense oligonucleotide targeted to R1 $\alpha$  subunit of cAMP-dependent protein kinase (GEM231) enhances therapeutic effectiveness of cancer chemotherapeutic agent irinotecan in nude mice bearing human cancer xenografts: in vivo synergistic activity, pharmacokinetics and host toxicity. *Int J Oncol.* 2002;21(1):73-80.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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