# Aprinocarsen sodium

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|---|---|
| **Cat. No.:** | HY-148413 |
| **CAS No.:** | 331257-53-5 |
| **Molecular Formula:** | $C_{196}H_{230}N_{68}Na_{19}O_{105}P_{19}S_{19}$ |
| **Molecular Weight:** | 6852.85 |
| **Sequence:** | DNA, d(P-thio)(G-T-T-C-T-C-G-C-T-G-G-T-G-A-G-T-T-T-C-A) |
| **Target:** | PKC |
| **Pathway:** | Epigenetics; TGF-beta/Smad |
| **Storage:** | -20°C, sealed storage, away from moisture<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |

Aprinocarsen (sodium)

## SOLVENT & SOLUBILITY

**In Vitro**

$H_2O$ : 100 mg/mL (14.59 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 0.1459 mL | 0.7296 mL | 1.4592 mL |
| | 5 mM | 0.0292 mL | 0.1459 mL | 0.2918 mL |
| | 10 mM | 0.0146 mL | 0.0730 mL | 0.1459 mL |

Please refer to the solubility information to select the appropriate solvent.

## BIOLOGICAL ACTIVITY

**Description**

Aprinocarsen (ISIS 3521) sodium, a specific antisense oligonucleotide inhibitor of protein kinase C-alpha (PKC-α). Aprinocarsen sodium is a 20-mer oligonucleotide, it regulates cell differentiation and proliferation. Aprinocarsen sodium inhibits the growth of human tumor cell lines in nude mice. Aprinocarsen sodium shows the value as a chemotherapeutic compound of human cancers[1].

**In Vitro**

Aprinocarsen sodium dose-dependently and oligonucleotide sequence specifically inhibits PKC-alpha in human bladder carcinoma (T-24) cells[1].

Aprinocarsen sodium shows an $IC_{50}$ value of 50-100 nM for PKC-α mRNA reduction, but it shows no effect on the expression of other members of the PKC family of genes (PKC-eta and zeta)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

Aprinocarsen sodium (100 mg/kg; i.v.; at repeat doses for 14 days) shows well tolerated character with no apparently acute toxicity[1].

Aprinocarsen sodium (i.v.) dose-dependently inhibits the growth of T-24 bladder, human lung carcinoma (A549) and Colo 205 colon carcinoma human tumor cell lines in nude mice with $ID_{50}$ values of 0.06-0.6 mg/kg daily[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. https://pubmed.ncbi.nlm.nih.gov/8758918/



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