

Trabedersen

Cat. No.:	HY-142118
CAS No.:	925681-61-4
Molecular Weight:	5768.7
Sequence:	DNA, d(P-thio)(C-G-G-C-A-T-G-T-C-T-A-T-T-T-T-G-T-A)
Target:	TGF-beta/Smad
Pathway:	Stem Cell/Wnt; TGF-beta/Smad
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

Trabedersen

SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (17.33 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		0.1733 mL	0.8667 mL	1.7335 mL
	5 mM		0.0347 mL	0.1733 mL	0.3467 mL
	10 mM		0.0173 mL	0.0867 mL	0.1733 mL

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

BIOLOGICAL ACTIVITY

Description

Trabedersen (AP 12009) is an antisense oligodeoxynucleotide that specifically inhibits TGF-β2 (TGF-beta/Smad). Trabedersen can be used for the study of malignant brain tumors and other solid tumors overexpressing TGF-β2, such as those of the skin, pancreas and colon^{[1][2]}.

In Vitro

Trabedersen (1-80 μM; 7 days) reduces TGF-β2 secretion in human pancreatic cancer cell line Hup-T3 with an IC₅₀ in the low μM range, clearly inhibits cell proliferation, and completely blocks migration of pancreatic cancer cells^[2]. Trabedersen reverses TGF-β2-mediated immunosuppression of pancreatic cancer cells^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Proliferation Assay^[2]

Cell Line:	Hup-T3 cells
Concentration:	1 μM, 2.5 μM, 5 μM, 10 μM, 20 μM, 40 μM, 60 μM, 80 μM
Incubation Time:	7 days
Result:	Inhibited cell proliferation, and completely blocked migration of pancreatic cancer cells.

In Vivo

Trabedersen (initial loading dose of 50 mg/kg bodyweight followed by 16 mg/kg three times a week; i.p.) treatment significantly reduces tumor growth, lymph node metastasis and angiogenesis in an orthotopic mouse model of metastatic pancreatic cancer^[2].

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Animal Model:	Eight-week-old male athymic nude mice (BALB/Cnu/nu) bearing human pancreatic cancer cells ^[2] .
Dosage:	Initial loading dose of 50 mg/kg bodyweight followed by 16 mg/kg three times a week.
Administration:	Intraperitoneal (i.p.) injection; three times a week; for 27 days
Result:	Significantly reduced tumor growth, lymph node metastasis and angiogenesis.

REFERENCES

[1]. Luc Vallières. Trabedersen, a TGFbeta2-specific antisense oligonucleotide for the treatment of malignant gliomas and other tumors overexpressing TGFbeta2. *IDrugs*. 2009 Jul;12(7):445-53.

[2]. Karl-Hermann Schlingensiepen, et al. Transforming growth factor-beta 2 gene silencing with trabedersen (AP 12009) in pancreatic cancer. *Cancer Sci*. 2011 Jun;102(6):1193-200.

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

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