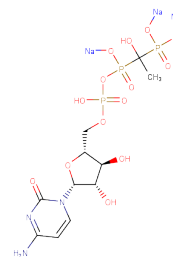


MBC-11 trisodium

Chemical Properties

CAS No. :	387877-45-4
Formula:	C ₁₁ H ₂₀ N ₃ NaO ₁₄ P ₃
Molecular Weight:	534.199
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	MBC-11 trisodium has potential to treat tumor-induced bone disease (TIBD). It is a first-in-class conjugate of the bone-targeting bisphosphonate HEDP covalently linked to the antimetabolite Ara-C.
Targets(IC50)	Others
In vitro	MBC-11 decreases KAS-6/1 cell growth from approximately 56% at 10 ⁻⁸ M to 6% at 10 ⁻⁵ M[1]. MBC-11 shows similar activity profiles and significantly inhibits growth of all three cell lines between 10 ⁻⁸ and 10 ⁻⁴ M.
In vivo	These results demonstrate that MBC-11 decreases bone tumor burden, maintains bone structure, and may increase overall survival, warranting further investigation as a treatment for tumor-induced bone disease (TIBD)[1]. MBC-11 (0.04 µg/day, s.c.) has a lower incidence of bone metastases of 40% compared to those treated with PBS (90%) or 0.04 µg/day zoledronate (100%). MBC-11 also significantly decreases bone tumor burden compared to PBS- or zoledronate-treated mice[1]. Weight gained in mice treated with up to 500 µg/day of MBC-11 is similar to the PBS treated group[1].

Solubility Information

Solubility	H ₂ O: 125 mg/mL (216.58 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.872 mL	9.3598 mL	18.7196 mL
5 mM	0.3744 mL	1.872 mL	3.7439 mL
10 mM	0.1872 mL	0.936 mL	1.872 mL
50 mM	0.0374 mL	0.1872 mL	0.3744 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Reinholz MM, et al. A promising approach for treatment of tumor-induced bone diseases: utilizing bisphosphonate derivatives of nucleoside antimetabolites. Bone. 2010 Jul;47(1):12-22.