

ONC206

## Chemical Properties

CAS No. : 1638178-87-6

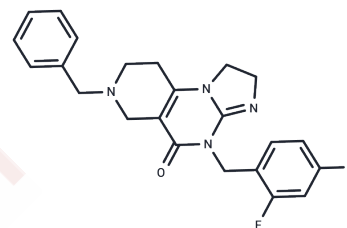
Formula: C<sub>23</sub>H<sub>22</sub>F<sub>2</sub>N<sub>4</sub>O

Molecular Weight: 408.44

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	ONC206, an analogue of the TRAIL inducer ONC201, acts as a selective antagonist of the D <sub>2</sub> -like dopamine receptors (DRD <sub>2/3/4</sub> ) at nanomolar concentrations and possesses broad-spectrum anti-tumor activity.
Targets(IC <sub>50</sub> )	Dopamine Receptor
In vitro	ONC206 (Oncocotics) is an imipridone with nanomolar potency and analogue of ONC201, a selective dopamine receptor D <sub>2</sub> (DRD <sub>2</sub> ) antagonist currently being investigated in phase II clinical trials for serous endometrial cancer (SEC). ONC206 inhibited cellular proliferation in a dose-dependent manner and was more potent than ONC201 in the ARK1 (IC <sub>50</sub> = 0.33 M vs. IC <sub>50</sub> = 1.59uM) and SPEC-2 (IC <sub>50</sub> = 0.24uM vs. IC <sub>50</sub> = 0.81uM) cell lines. Treatment with ONC206 resulted in induction of ROS production and reduction of mitochondrial membrane potential, accompanied by an increase in cleaved caspase-3 and caspase-9 activity (p < 0.01). ONC206 also significantly inhibited cellular adhesion and migration in both cell lines (p < 0.01). Pretreatment with the stress inhibitor N-acetylcysteine (NAC) significantly attenuated the efficacy of ONC206 on cell proliferation, ROS production and cellular invasion. ONC206 demonstrates nanomolar potency for the inhibition of proliferation in SEC cells[3].
In vivo	ONC206 (100 mg/kg; p.o.; every 10 days) reduces obviously tumor growth inhibition[2].

## Solubility Information

Solubility	DMSO: 103 mg/mL (252.18 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.4483 mL	12.2417 mL	24.4834 mL
5 mM	0.4897 mL	2.4483 mL	4.8967 mL
10 mM	0.2448 mL	1.2242 mL	2.4483 mL
50 mM	0.049 mL	0.2448 mL	0.4897 mL

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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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Wagner J, et al. Preclinical evaluation of the imipridone family, analogs of clinical stage anti-cancer small molecule ONC201, reveals potent anti-cancer effects of ONC212. *Cell Cycle*. 2017 Oct 2;16(19):1790-1799.
- Varun Vijay Prabhu, et al. Potent anti-cancer activity of the imipridone ONC206: A selective dopamine D2-like receptor antagonist. *AACR Annual Meeting 2017*, April 1-5, 2017; Washington, DC.
- Zhang Y , Huang Y , Yin Y , et al. ONC206, an Imipridone Derivative, Induces Cell Death Through Activation of the Integrated Stress Response in Serous Endometrial Cancer In Vitro[J]. *Frontiers in Oncology*, 2020, 10:577141.

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