

DUPA

Chemical Properties

CAS No. : 302941-52-2

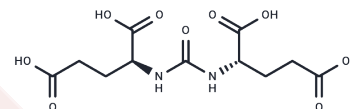
Formula: C₁₁H₁₆N₂O₉

Molecular Weight: 320.25

Keep away from direct sunlight

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	DUPA (N,N''-Carboxylbis[L-glutamic acid]) is used as the targeting moiety to actively deliver DTX for treatment of Prostate-Specific Membrane Antigen (PSMA) expressing prostate cancer.
Targets(IC50)	PSMA,Ligands for Target Protein for PROTAC
In vitro	DUPA is utilized as a targeting moiety to actively deliver Docetaxel (DTX) for treating prostate-specific membrane antigen (PSMA)-expressing prostate cancer.
In vivo	As determined by loss of body weight and death of treated mice,DUPA-indenoisoquinoline conjugate induces a complete cessation of tumor growth with no toxicity[2].

Solubility Information

Solubility	DMSO: 280 mg/mL (874.32 mM),Sonication is recommended. H ₂ O: 140 mg/mL (437.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (15.61 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1226 mL	15.6128 mL	31.2256 mL
5 mM	0.6245 mL	3.1226 mL	6.2451 mL
10 mM	0.3123 mL	1.5613 mL	3.1226 mL
50 mM	0.0625 mL	0.3123 mL	0.6245 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.

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

Peng ZH, et al. Spacer length impacts the efficacy of targeted docetaxel conjugates in prostate-specific membrane antigen expressing prostate cancer. *J Drug Target*. 2013 Dec;21(10):968-80.

Roy J, et al. DUBA conjugation of a cytotoxic indenoisoquinoline topoisomerase I inhibitor for selective prostate cancer cell targeting. *J Med Chem*. 2015 Apr 9;58(7):3094-103.

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