

Rosopatamab

Chemical Properties

CAS No. : 2260767-49-3

Formula:

Molecular Weight: 144.36kDa

Store at low temperature

Storage: -20°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Rosopatamab is a humanized monoclonal antibody targeting prostate-specific membrane antigen (PSMA) for the treatment of prostate cancer. It can be conjugated with radiolabeled isotopes (e.g., ¹⁷⁷ Lu) via DOTA-NHS ester to form radiopharmaceuticals for targeted therapy. In preclinical studies, ¹⁷⁷ Lu-DOTA-Rosopatamab combined with the DNA-PK inhibitor Peposertib achieved a 75% complete response rate in prostate cancer mouse models.
Targets(IC50)	PSMA
In vivo	<p>Methods: Tumors of mice bearing SK-RC-52 RCC or LNCaP prostate cancer xenografts were delivered beta-irradiated with ¹⁷⁷Lu-DOTA-Girentuximab (targeting carbonic anhydrase IX) or ¹⁷⁷Lu-DOTA-Rosopatamab (targeting prostate-specific membrane antigen) via a single intravenous dose (3 or 6 MBq), respectively. Mice were treated with peposertib (50 mg/kg, gavage, for 14 days). Biodistribution and in vivo imaging of ¹⁷⁷Lu radioimmunotherapy were performed in both preclinical models. Tumor growth and body weight were monitored until endpoint. DNA damage was assessed by measuring DSBs by analyzing γH2AX foci formation in tumor sections.</p> <p>Results: In vitro biodistribution and in vivo SPECT/MRI showed high tumor uptake of each radiopharmaceutical. Body weights of mice were stable in all treatment groups. Peposertib alone did not show significant antitumor effects. In the SK-RC-52 animal model, the addition of peposertib to ¹⁷⁷Lu-DOTA-Girentuximab showed enhanced antitumor effects compared to ¹⁷⁷Lu-DOTA-Girentuximab alone, with a complete remission rate of 4/4 in the ¹⁷⁷Lu-DOTA-Girentuximab (6 MBq) plus peposertib group. The combination of peposertib with low-dose ¹⁷⁷Lu-DOTA-Girentuximab (3 MBq) showed comparable antitumor activity to ¹⁷⁷Lu-DOTA-Girentuximab (6 MBq) monotherapy. In the LNCaP prostate cancer model, the combination of ¹⁷⁷Lu-DOTA-Rosopatamab (6 MBq) and peposertib achieved a complete remission rate of 3/4. Increased DSBs were observed after the addition of peposertib to ¹⁷⁷Lu-based radioimmunotherapy. [1]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.0069 mL	0.0346 mL	0.0693 mL
5 mM	0.0014 mL	0.0069 mL	0.0139 mL
10 mM	0.0007 mL	0.0035 mL	0.0069 mL
50 mM	0.0001 mL	0.0007 mL	0.0014 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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