

Blosozumab

Chemical Properties

CAS No. :	1132758-87-2
Formula:	
Molecular Weight:	144.88 kDa
Storage:	Store at low temperature -20°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Blosozumab (LY2541546) is a humanized monoclonal antibody targeting sclerostin, promoting bone formation and inhibiting bone resorption, used in osteoporosis research. Blosozumab increases bone mass by neutralizing the negative effects of sclerostin on the Wnt signaling pathway.
Targets(IC50)	Wnt/beta-catenin
In vivo	<p>Blosozumab is a humanized monoclonal antibody (IgG4) optimized for neutralizing activity against sclerotin. In 5-week and 6-month nonclinical safety studies in rats, blosozumab caused a dose-dependent, reversible decrease in platelet count, accompanied by accelerated thrombopoiesis, increased megakaryocytes, and megakaryocyte morphological changes. In rhesus monkeys treated with blosozumab, there were no changes in platelet counts or megakaryocytes.[1]</p> <p>Methods: A mouse tibial fracture model was established. One week after fracture, anti-sclerostin monoclonal antibody (blosozumab, 100 mg/kg) was administered intravenously weekly. A SOST gene knockout group and a saline control group were established, with intervention continuing for 5 weeks; micro-CT was used to measure callus volume, and a three-point bending test was employed to evaluate the biomechanical properties of fracture healing.</p> <p>Results: Blosozumab significantly increased the callus volume fraction and biomechanical strength 2 weeks post-fracture and effectively promoted fracture healing. It demonstrated good safety, and increasing the dose may further enhance efficacy. [2]</p> <p>Methods: SD rats and crab-eating macaques were used for repeated-dose toxicity studies. Rats received intravenous injections of Blosozumab: the 5-week group received 1, 10, or 100 mg/kg every 3 days, and the 6-month group received 1, 10, or 100 mg/kg once weekly; Crab-eating macaques received intravenous injections of Blosozumab: the 5-week group received 1, 10, or 100 mg/kg every 5 days, and the 9-month group received 3, 30, or 100 mg/kg once weekly.</p> <p>Results: Blosozumab caused dose-dependent, reversible thrombocytopenia in rats, accompanied by bleeding, megakaryocytosis, and extramedullary hematopoiesis, without bone marrow suppression or disseminated intravascular coagulation; no abnormalities in platelets, megakaryocytes, or bleeding were observed in crab-eating macaques. [3]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.0069 mL	0.0345 mL	0.069 mL
5 mM	0.0014 mL	0.0069 mL	0.0138 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.

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