

Lanadelumab

Chemical Properties

CAS No. : 1426055-14-2

Formula:

Molecular Weight: 145.70 kDa

Store at low temperature

Storage: Store at -20°C

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lanadelumab (SHP643) is a humanized IgG1 monoclonal antibody targeting plasma kallikrein (pKal) with a K_i value of 0.12 nM. Lanadelumab effectively inhibits both free pKal and its interaction with high molecular weight kininogen (HMWK)-bound pKal. Lanadelumab has demonstrated potential in hereditary angioedema research and represents a promising therapeutic antibody for studying kallikrein-kinin system regulation.
Targets(IC50)	Serine Protease
In vitro	Lanadelumab (0-1000 nM) inhibits the proteolytic activity of pKal toward its endogenous substrate, single-chain HMWK. Furthermore, in vitro studies demonstrate that Lanadelumab potently prevents HMWK proteolysis and the subsequent release of bradykinin, with an IC50 of 1.3 nM.[2]
In vivo	Lanadelumab (20 mg/kg; i.v. or s.c.) exhibits an extended half-life of approximately 12.5 days and effectively blocks high molecular weight kininogen proteolysis in activated plasma in a dose- and time-dependent manner in cynomolgus monkeys. Additionally, Lanadelumab (1, 30 mg/kg; s.c.) significantly inhibits carrageenan-induced paw edema in male Sprague-Dawley rats.[2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.0069 mL	0.0343 mL	0.0686 mL
5 mM	0.0014 mL	0.0069 mL	0.0137 mL
10 mM	0.0007 mL	0.0034 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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