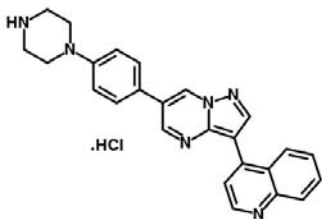
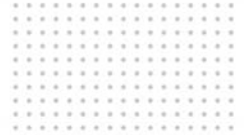


PRODUCT SPECIFICATION SHEET

Product Name	Stemolecule™ LDN-193189
Description	LDN-193189 is a cell permeable small molecule inhibitor of bone morphogenetic protein (BMP) type I receptors ALK2 and ALK3 (IC_{50} = 5 nM and 30 nM respectively) ¹ . LDN-193189 was derived from structure-activity relationship studies of Dorsomorphin and functions primarily through prevention of Smad1, Smad5, and Smad8 phosphorylation ¹⁻³ . LDN-193189 only weakly inhibits ALK4, ALK5, and ALK7 ¹ . BMP signaling coordinates developmental patterning and has essential physiological roles in mature organisms ^{4,5} . LDN-193189 has been used to reduce ectopic ossification in a mouse model of <i>fibrodysplasia ossificans progressiva</i> ¹ . Stemolecule LDN-193189 is a hydrochloride salt.
Catalog Number	04-0074-10
Size	10 mg
Alternate Name	4-(6-(4-(piperazin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-3-yl)quinoline hydrochloride
Chemical Name	$C_{25}H_{22}N_6 \cdot HCl$
Structure	
Molecular Weight	442.94
CAS Number	1062368-24-4
Purity	Greater than 96% by HPLC analysis
Formulation	Yellow Powder
Solubility	LDN-193189 is soluble in DMSO at 10 mM.
Reconstitution	For a 10 mM concentrated stock solution of LDN-193189, reconstitute the compound by adding 2.26 ml of DMSO to the entire contents of the vial. If precipitate is observed, warm the solution to 37°C for 2 to 5 minutes. For use in cell culture, warm the medium just prior to adding the reconstituted compound. Once the compound is added, mix and filter-sterilize the medium using a 0.2 μM low-protein binding filter.
Storage and Stability	Store powder at 4°C protected from light. Following reconstitution, store aliquots at -20°C. Stock solutions are stable for 6 months when stored as directed.
Quality Control	The purity of LDN-193189 was determined by HPLC analysis. The accurate mass was determined by mass spectrometry. No acute cytotoxicity was observed in mouse

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PRODUCT SPECIFICATION SHEET

embryonic stem cells following a 6 hour exposure to 1 nM – 1 μM of LDN-193189.

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