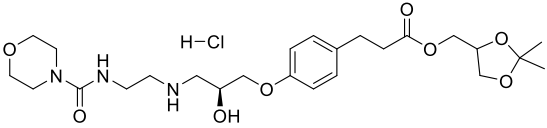


Product data sheet



MedKoo Cat#: 326680 Name: Landiolol HCl CAS: 144481-98-1 (HCl) Chemical Formula: C ₂₅ H ₄₀ ClN ₃ O ₈ Exact Mass: 545.2504 Molecular Weight: 546.058	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Landiolol, also known as LDL600 and ONO 1101, is an ultra-short-acting β_1 -blocker, is useful for managing supraventricular tachyarrhythmias in sepsis. Landiolol is a drug which acts as a highly cardioselective, ultra short-acting beta blocker. It is used as an anti-arrhythmic agent. Landiolol reduces hemodynamic responses to bronchoscopy-assisted suctioning in intubated ICU patients.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	175.0	320.48
Ethanol	42.0	76.91
Water	100.0	183.13

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.83 mL	9.16 mL	18.31 mL
5 mM	0.37 mL	1.83 mL	3.66 mL
10 mM	0.18 mL	0.92 mL	1.83 mL
50 mM	0.04 mL	0.18 mL	0.37 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Sugiyama A, Takahara A, Hashimoto K. Electrophysiologic, cardiohemodynamic and beta-blocking actions of a new ultra-short-acting beta-blocker, ONO-1101, assessed by the in vivo canine model in comparison with esmolol. *J Cardiovasc Pharmacol.* 1999 Jul;34(1):70-7. doi: 10.1097/00005344-199907000-00012. PMID: 10413070.

2. Ahmet I, Fukushima N, Sawa Y, Masai T, Kadoba K, Kagisaki K, Chang JC, Yamaguchi T, Matsuda H. The effects of a new ultra-short-acting beta-adrenergic blocker, ONO-1101, on cardiac function during and after cardiopulmonary bypass. *Surg Today.* 1999;29(3):248-54. doi: 10.1007/BF02483015. PMID: 10192736.

7. Bioactivity

Biological target:

Landiolol hydrochloride (ONO1101 hydrochloride) is a highly beta1 selective ultra-short acting beta-blocker (β_1/β_2 selectivity = 255:1, a half-life of 4 min), acts as an adrenoceptor antagonist.

Product data sheet



In vitro activity

TBD

In vivo activity

ONO-1101 significantly decreased the heart rate, rate-pressure product, left ventricular contraction, cardiac output, and relative refractory period of the right ventricle, suppressed the AV nodal conduction, and increased the effective refractory period of the right ventricle, whereas no significant change was observed in the preload and afterload of the left ventricle, intrinsic sinus nodal automaticity, His-Purkinje-ventricular conduction, and the monophasic action-potential duration of the right ventricle in beagle dogs. These results suggest that the suppressive effects of ONO-1101 on cardiovascular performance are significantly less potent than those of esmolol at equipotent beta-blocking doses.

Reference: J Cardiovasc Pharmacol. 1999 Jul;34(1):70-7. <https://pubmed.ncbi.nlm.nih.gov/10413070/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.