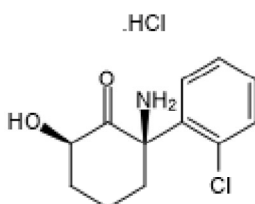


Certificate of Analysis

Product Name: 2*R*,6*R*-Hydroxynorketamine hydrochloride **Catalog No.:** 6094 **Batch No.:** 2
CAS Number: 1430202-69-9
IUPAC Name: (2*R*,6*R*)-2-Amino-2-(2-chlorophenyl)-6-hydroxycyclohexanone hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₄ClNO₂.HCl
Batch Molecular Weight: 276.16
Physical Appearance: White solid
Solubility: water to 50 mM
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
Chiral HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	52.19	5.47	5.07
Found	52.13	5.45	4.92

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name:	2R,6R-Hydroxynorketamine hydrochloride	Catalog No.:	6094	2
CAS Number:	1430202-69-9			
IUPAC Name:	(2R,6R)-2-Amino-2-(2-chlorophenyl)-6-hydroxycyclohexanone hydrochloride			

Description:

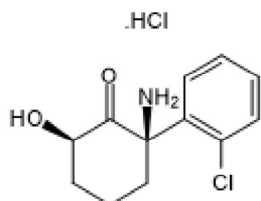
2R,6R-Hydroxynorketamine hydrochloride is a ketamine metabolite. It enhances AMPA receptor-mediated excitatory post-synaptic potentials in the CA1 region of hippocampal slices and decreases intracellular D-serine (a NMDA co-agonist) concentrations in PC-12 cells (IC₅₀ = 0.68 nM). 2R,6R-Hydroxynorketamine upregulates KCNQ2 channels in mouse ventral hippocampal glutamatergic neurons in vitro and in vivo. Exerts antidepressant effects in mice. Lacks ketamine-related side effects. 2S,6S-Enantiomer and Racemate also available. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₂H₁₄ClNO₂.HCl
 Batch Molecular Weight: 276.16
 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 50 mM
 DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from the NIH, US patent 62/313,309

References:

Lopez et al (2022) Ketamine exerts its sustained antidepressant effects via cell-type-specific regulation of Kcnq2. *Neuron* **110** 2283. PMID: 35649415.
Singh et al (2016) KA metabolites enantioselectively decrease intracellular D-serine concentrations in PC-12 cells. *PLoS One* **11** e0149499. PMID: 27096720.
Zanos et al (2016) NMDAR inhibition-independent antidepressant actions of KA metabolites. *Nature* **533** 481. PMID: 27144355.

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