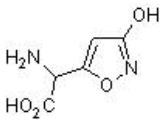
abcam

Product datasheet

# Ibotenic acid, excitotoxic agonist ab120041

13 References 2 Images

## Overview

| | |
|---|---|
| **Product name** | Ibotenic acid, excitotoxic agonist |
| **Description** | Excitotoxic agonist |
| **Biological description** | Neuroexcitatory amino acid originally isolated from *Amanita* species. Neurotoxin often used to model cognitive dysfunctions. NMDA and metabotropic receptor agonist.<br><br>Also available in simple stock solutions (**ab146670**) - add 1 ml of water to get an exact, ready-to-use concentration. |
| **CAS Number** | 2552-55-8 |
| **Chemical structure** |  |

## Properties

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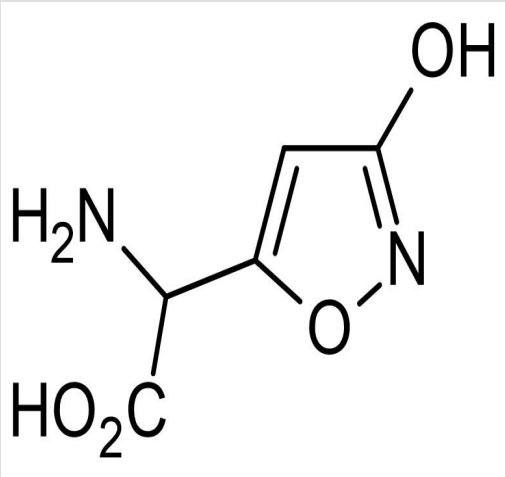
|---|---|
| **Chemical name** | 2-Amino-2-(3-hydroxyisoxazol-5-yl)acetic acid |
| **Molecular weight** | 158.11 |
| **Molecular formula** | $C_5H_6N_2O_4$ |
| **PubChem identifier** | 1233 |
| **Storage instructions** | Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months. |
| **Solubility overview** | Soluble in water to 10 mM |
| **Handling** | Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.<br><br>Toxic, refer to SDS for further information.<br><br>Need more advice on solubility, usage and handling? Please visit our **frequently asked questions (FAQ) page** for more details. |
| **SMILES** | NC(C(=O)O)c1cc(O)no1 |

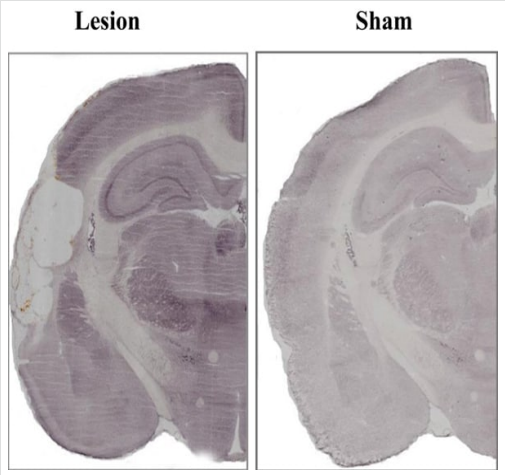
**Source** Synthetic

## Images




Chemical Structure - Ibotenic acid, excitotoxic agonist (ab120041)

2D chemical structure image of ab120041, Ibotenic acid, excitotoxic agonist




Functional Studies - Ibotenic acid, excitotoxic agonist (ab120041)

Image from Masini CV et al., Brain Res. 2013;1443:18-26. Fig 1.; doi: 10.1016/j.brainres.2012.01.002 with permission from Elsevier.

Representative examples of NeuN immunohistochemistry of a complete auditory cortex lesion or sham-operated control section. Rats were anesthetized with halothane and placed in a Kopf stereotaxic apparatus. The skin overlying the skull was disinfected, an incision made, and small burr holes drilled through the skull bone to allow penetration of the injector (Hamilton 1 µl syringe). Bilateral excitotoxic lesions (two per side) were produced by injections of 0.25 µl ibotenic acid (10 µg/µl in 0.1 M sodium phosphate buffer, pH: 7.4; ab120041). The rate of infusion was 0.05 µl/min. The injector was lowered in the brain and left in place 3 min before and 5 min after each injection.



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