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DATASHEET

Ibotenic acid

Product overview

Name	Ibotenic acid
Cat No	HB0330
Biological action	Agonist
Purity	>98%
Description	Non-selective NMDA / mGlu receptor agonist

Images



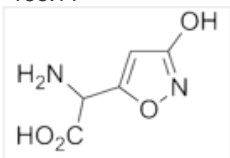
Biological Data

Biological description	Non-selective NMDA and mGlu receptor agonist (EC_{50} values are 17, 43, 110, >1000 and >1000 μ M for mGlu _{5a} , mGlu _{1a} , mGlu ₂ , mGlu _{4a} and mGlu ₆ receptors respectively). Shows excitotoxic actions. Used for cognitive dysfunction models for neurodegenerative disease research.
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Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in water (10mM) and in 0.1M NaOH (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	α -Amino-(3-hydroxy-5-isoxazolyl)acetic acid
Molecular Weight	158.11
Chemical structure	
Molecular Formula	C ₅ H ₆ N ₂ O ₄
CAS Number	2552-55-8

PubChem identifier	1233
SMILES	<chem>C1=C(ONC1=O)C(C(=O)O)N</chem>
Source	Synthetic
InChi	InChI=1S/C5H6N2O4/c6-4(5(9)10)2-1-3(8)7-11-2/h1,4H,6H2,(H,7,8)(H,9,10)
InChiKey	IRJCBFDCFXCWGO-UHFFFAOYSA-N
MDL number	MFCD00069294
Appearance	White solid

References

Ibotenic acid and thioibotenic acid: a remarkable difference in activity at group III metabotropic glutamate receptors.

Hermit MB *et al* (2004) *Eur J Pharmacol* 486(3)

PubMedID [14985045](#)

Neurochemical and behavioral effects of the intrahippocampal co-injection of beta-amyloid protein1-40 and ibotenic acid in rats.

Li Y *et al* (2005) *Life Sci* 76(11)

PubMedID [15642590](#)

Molecular pharmacology of homologues of ibotenic acid at cloned metabotropic glutamic acid receptors.

Bräuner-Osborne H *et al* (1998) *Eur J Pharmacol* 350(2-3)

PubMedID [9696422](#)

Isomers of 2-amino-7-phosphonoheptanoic acid as antagonists of neuronal excitants.

Perkins MN *et al* (1982) *Neurosci Lett* 32(1)

PubMedID [6755315](#)
