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DATASHEET

L-Glutamate

Product overview

Name	L-Glutamate
Cat No	HB0383
Alternative names	L-glutamic acid
Biological action	Agonist
Purity	>95% (NMR)
Description	Glutamate receptor excitatory neurotransmitter

Images

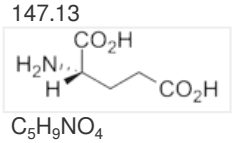
Biological Data

Biological description	Predominant excitatory neurotransmitter in the CNS. Active at ionotropic and metabotropic glutamate receptors. Physiological roles in vivo. Also associated with neuronal cell death and neurodegenerative disease pathogensesis.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble 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	(*S*)-1-Aminopropane-1,3-dicarboxylic acid
Molecular Weight	147.13
Chemical structure	
Molecular Formula	$C_5H_9NO_4$
CAS Number	56-86-0
PubChem identifier	33032
SMILES	C(CC(=O)O)[C@@H](C(=O)O)N

InChi	InChI=1S/C5H9NO4/c6-3(5(9)10)1-2-4(7)8/h3H,1-2,6H2,(H,7,8)(H,9,10)/t3-/m0/s1
InChiKey	WHUUTDBJXJRKMK-VKHMYHEASA-N
MDL number	MFCD00002634
Appearance	White solid

References

Ionotropic and metabotropic glutamate receptor structure and pharmacology.

Kew JN *et al* (2005) Psychopharmacology (Berl) 179(1)
PubMedID 15731895

Modulation of gene expression of adenosine and metabotropic glutamate receptors in rat's neuronal cells exposed to L-glutamate and [60]fullerene.

Giust D *et al* (2014) J Biomed Nanotechnol 10(8)
PubMedID 25016660

Glutamate receptor-mediated inhibition of L-glutamate efflux from cerebral cortex in vitro.

Hainsworth AH *et al* (2006) Brain Res 1114(1)
PubMedID 16904087