

Data Sheet

Product Name:Spaglumic AcidCat. No.:CS-0020591CAS No.:3106-85-2Molecular Formula: $C_{11}H_{16}N_2O_8$

Molecular Weight: 304.25

Target:Endogenous MetabolitePathway:Metabolic Enzyme/ProteaseSolubility: $H_2O: 250 \text{ mg/mL}$ (ultrasonic)

BIOLOGICAL ACTIVITY:

Spaglumic Acid (N-Acetylaspartylglutamic acid) is a neuropeptide found in millimolar concentrations in brain. *In Vitro:* Spaglumic Acid (N-Acetylaspartylglutamate; NAAG) is released upon depolarization by a Ca²⁺-dependent process and is an agonist at mGluR3 receptors and an antagonist at NMDA receptors. Spaglumic Acid is catabolized to N-acetylaspartate and glutamate primarily by glutamate carboxypeptidase II, which is expressed on the extracellular surface of astrocytes. The levels of Spaglumic Acid and the activity of carboxypeptidase II are altered in a regionally specific fashion in several neuropsychiatric disorders^[1].

References:

[1]. Coyle JT. The nagging question of the function of N-acetylaspartylglutamate. Neurobiol Dis. 1997;4(3-4):231-8.

CAIndexNames:

L-Glutamic acid, N-acetyl-L-α-aspartyl-

SMILES:

O = C(O)CC[C@@H](C(O) = O)NC([C@H](CC(O) = O)NC(C) = O) = O

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr., Suite F., Monmouth Junction, NJ 08852, USA

Page 1 of 1 www.ChemScene.com