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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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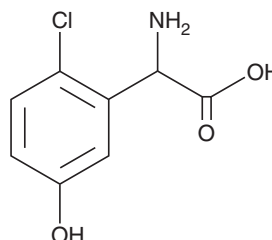
PRODUCT INFORMATION



(R,S)-CHPG

Item No. 21408

CAS Registry No.: 170846-74-9
Formal Name: α -amino-2-chloro-5-hydroxy-benzeneacetic acid
Synonyms: Chlorohydroxyphenylglycine, CHPG
MF: C₈H₈ClNO₃
FW: 201.6
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 2 years
Special Conditions: Store in desiccating conditions



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(R,S)-CHPG is supplied as a solid. A stock solution may be made by dissolving the (R,S)-CHPG in the solvent of choice. (R,S)-CHPG is soluble in 1 eq. NaOH to 100 mM.

Description

(R,S)-CHPG is a potent and selective agonist at metabotropic glutamate receptor 5 (mGluR5). In CHO cells, it had an EC₅₀ of 750 μ M for calcium mobilization in mGluR5a-expressing cells but was inactive in mGluR1a-expressing cells.¹ In transfected HEK293 cells, (R,S)-CHPG bound mGluR1a and mGluR5a (K_ds = 0.9 and 3.9 μ M, respectively) but not ionotropic glutamate receptors.² It reduced oxidative stress and inflammatory markers in cultured BV-2 microglial cells.³ In mouse models of traumatic brain injury, it reduced lesion volume, improved sensorimotor deficits in the beam walk test, and improved spatial memory in the Morris water maze.⁴

References

1. Doherty, A.J., Palmer, M.J., Henley, J.M., *et al.* (RS)-2-chloro-5-hydroxyphenylglycine (CHPG) activates mGlu₅, but no mGlu₁, receptors expressed in CHO cells and potentiates NMDA responses in the hippocampus. *Neuropharmacology* **36(2)**, 265-267 (1997).
2. Mutel, V., Ellis, G.J., Adam, G., *et al.* Characterization of [³H]quisqualate binding to recombinant rat metabotropic glutamate 1a and 5a receptors and to rat and human brain sections. *J. Neurochem.* **75(6)**, 2590-2601 (2000).
3. Qiu, J.-L., Zhu, W.-L., Lu, Y.-J., *et al.* The selective mGluR5 agonist CHPG attenuates SO₂-induced oxidative stress and inflammation through TSG-6/NF- κ B pathway in BV2 microglial cells. *Neurochem Int.* **85-86**, 46-52 (2015).
4. Loane, D.J., Stoica, B.A., Byrnes, K.R., *et al.* Activation of mGluR5 and inhibition of NADPH oxidase improves functional recovery after traumatic brain injury. *J. Neurotrauma* **30(5)**, 403-412 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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