(R,S)-CHPG
Item No. 21408

CAS Registry No.: 170846-74-9
Formal Name: \(\alpha\)-amino-2-chloro-5-hydroxy-benzeneacetic acid
Synonyms: Chlorohydroxyphenylglycine, CHPG
MF: \(C_8H_8ClNO_3\)
FW: 201.6
Purity: \(\geq 98\%\)
Supplied as: A solid
Storage: -20°C
Stability: \(\geq 4\) 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 EC\(_{50}\) of 750 \(\mu\)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 (\(K_i\) = 0.9 and 3.9 \(\mu\)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