

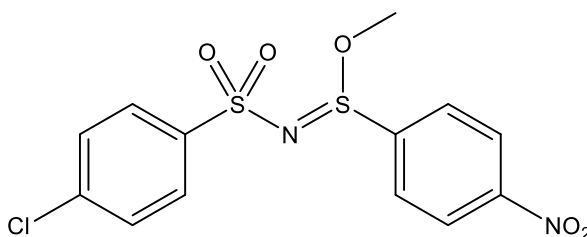
Catalog # 10-1431

CCG-4986

7134-19-2

Methyl-N-[(4-chlorophenyl)sulfonyl]-4-nitrobenzenesulfinimidoate

Lot # X105304



CCG-4986 is the first selective non-peptide inhibitor of the regulator of G protein signaling protein subtype RGS4.¹ It covalently²⁻³ modifies RGS4 by inhibiting its interaction with G α (IC₅₀ = 3-5 μ M) and suppressing GTPase activity¹. Intratympanic administration of CCG-4986 was shown to rescue cochlear injury and hearing loss induced by acoustic overexposure and represents a novel paradigm for the treatment of sensorineural hearing loss via pharmacological regulation of GPCR signaling.⁴ A novel tool for exploring the involvement of RGS4 in physiological processes.⁵

- 1) Roman *et al.* (2007), *Identification of small-molecule inhibitors of RGS4 using a high-throughput flow cytometry protein interaction assay*; Mol. Pharmacol. **71** 169
- 2) Kimple *et al.* (2007), *The RGS protein inhibitor CCG-4986 is a covalent modifier of the RGS4 Galpha-interaction face*; Biochim. Biophys. Acta. **1774** 1213
- 3) Roman *et al.* (2010), *Allosteric inhibition of the regulator of G protein signaling-Galpa protein-protein interaction by CCG-4986*; Mol. Pharmacol. **71** 360
- 4) Fok *et al.* (2020), *Regulator of G Protein Signaling 4 (RGS4) as a Novel Target for the Treatment of Sensorineural Hearing Loss*; Int. J. Mol. Sci. **22** 3
- 5) Cheng *et al.* (2013), *Zebrafish rgs4 is essential for motility and axonogenesis mediated by Akt signaling*; Cell. Mol. Life Sci. **70** 935

PHYSICAL DATA

Molecular Weight:	374.81
Molecular Formula:	C ₁₃ H ₁₁ ClN ₂ O ₅ S ₂
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (60 mg/ml); Ethanol (5 mg/ml with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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