



Catalog # 10-5417

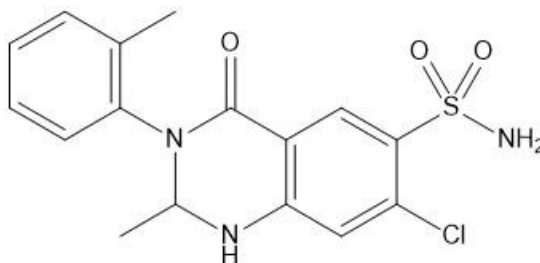
Metolazone

CAS# 17560-51-9

7-Chloro-1,2,3,4-tetrahydro-2-methyl-3-(2-methylphenyl)-4-oxo-6-quinazolinesulfonamide;

SR 720-22

Lot # X109835



Activates mitochondrial unfolded protein response (UPR^{MT}) and increases *C. elegans* lifespan.⁴ Clinically useful diuretic that inhibits the thiazide-sensitive Na⁺-Cl⁻ cotransporter (NCC) (IC₅₀ = 0.3 μM rat), blocking sodium reabsorption.^{2,3} Metolazone also inhibits human carbonic anhydrase isoforms VII, XII, and XIII with nanomolar potency.⁴

- 1) Ito *et al.* (2021), *Metolazone upregulates mitochondrial chaperones and extends lifespan in Caenorhabditis elegans*; Biogerontology, **22** 119
- 2) Beaumont *et al.* (1988), *Thiazide diuretic drug receptors in rat kidney: identification with [3H] metolazone*; Proc. Natl. Acad. Sci. USA, **85** 2311
- 3) Moreno *et al.* (2006), *Affinity-defining domains in the Na-Cl cotransporter: a different location for Cl⁻ and thiazide binding*; J. Biol. Chem., **281** 17266
- 4) Temperini *et al.* (2008), *Carbonic anhydrase inhibitors. Interaction of indapamide and related diuretics with 12 mammalian isozymes and X-ray crystallographic studies for the indapamide-isozyme II adduct*; Bioorg. Med. Chem. Lett., **18** 2567

PHYSICAL DATA

Molecular Weight:	365.83
Molecular Formula:	C ₁₆ H ₁₆ ClN ₃ O ₃ S
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 36 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at room temperature for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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