

Cimetidine

Catalog No: tcsc2325



Available Sizes

Size: 1g

Size: 5g

Size: 10g



Specifications

CAS No:

51481-61-9

Formula:

$C_{10}H_{16}N_6S$

Pathway:

Immunology/Inflammation;GPCR/G Protein

Target:

Histamine Receptor;Histamine Receptor

Purity / Grade:

>98%

Solubility:

H2O : 2 mg/mL (7.93 mM; Need ultrasonic)

Alternative Names:

SKF-92334

Observed Molecular Weight:

252.34

Product Description

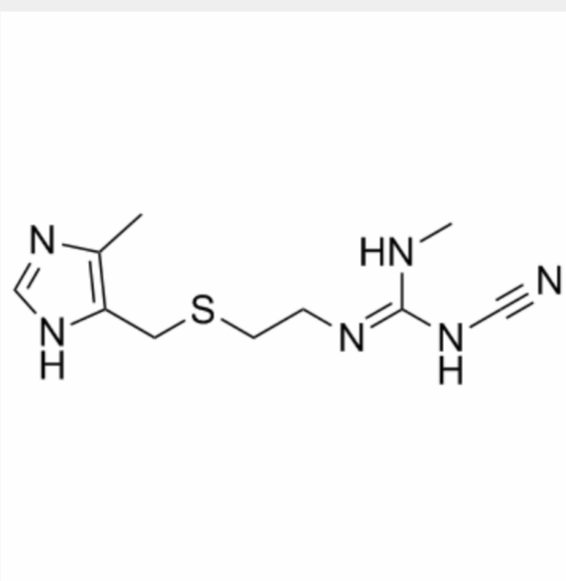
Cimetidine is a histamine-2 (H₂) receptor antagonist.

IC₅₀ Value:

Target: Histamine-2 Receptor

in vitro: Cimetidine, a partial agonist for H₂R, has a pharmacological profile different from ranitidine and famotidine, possibly contributing to its antitumor activity on gastrointestinal cancers [1]. Cimetidine had no effect on the uptake and cytotoxicity of cisplatin in ovarian cancer cells with high OCT2 mRNA levels (IGROV-1 cells) [2]. Cimetidine showed no effect on proliferation, survival, migration and invasion of 3LL cells. Cimetidine reversed MDSC-mediated T-cell suppression, and improved IFN- γ production. [3]. Cimetidine-mediated down-regulation of NCAM involved suppression of the nuclear translocation of NF-kappaB, a transcriptional activator of NCAM gene expression [4].

in vivo: the antitumor efficacy of cisplatin in mice bearing luciferase-tagged IGROV-1 xenografts was unaffected by cimetidine (P = 0.39). Data obtained in 18 patients receiving cisplatin (100 mg/m²) in a randomized crossover fashion with or without cimetidine (800 mg \times 2) revealed that cimetidine did not alter exposure to unbound cisplatin [2]. cimetidine reduced CD11b(+)Gr-1(+) myeloid derived-suppressive cell (MDSC) accumulation in spleen, blood and tumor tissue of tumor-bearing mice [3]. Cimetidine exerts a beneficial effect on periodontal disease in rats, decreasing the RANKL/OPG ratio in gingival connective tissue and reducing alveolar bone resorption [5].



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