



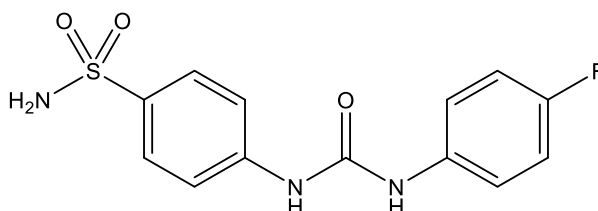
Catalog # 10-4185

SLC-0111

CAS# 178606-66-1

1-(4-Fluorophenyl)-3-(4-sulfamoylphenyl)urea; U-104

Lot # FBS5005



SLC-0111 is a potent inhibitor of carbonic anhydrases IX and XII ($K_i = 45$ nM IX; 4.5 nM XII)¹. Active in multiple cancer models²⁻⁵ and has displayed synergism with conventional chemotherapy⁶. SLC-0111 upregulated CD8+ T cells in murine pancreatic cancer models⁷ and improved responses to immune checkpoint inhibitors⁸.

- 1) Pacchiano *et al.* (2011), *Ureido-Substituted Benzenesulfonamides Potently Inhibit Carbonic Anhydrase IX and Show Antimetastatic Activity in a Model of Breast Cancer Metastasis*; J. Med. Chem. **54** 1896
- 2) Lou *et al.* (2011), *Targeting Tumor Hypoxia: Suppression of Breast Tumor Growth and Metastasis by Novel Carbonic Anhydrase IX Inhibitors*; Cancer Res. **71** 3364
- 3) Andreucci *et al.* (2023), *The CAIX inhibitor SLC-0111 exerts anti-cancer activity on gastric cancer cell lines and resensitizes resistant cells to 5-Fluorouracil, taxane-derived, and platinum-based drugs*; Cancer Lett. **571** 216338
- 4) Mussi *et al.* (2022), *Antiproliferative effects of sulphonamide carbonic anhydrase inhibitors C18, SLC-0111 and Acetazolamide on bladder, glioblastoma and pancreatic cancer cell lines*; J. Enzyme Inhib. Med. Chem. **37** 280
- 5) Ciccone *et al.* (2020), *Pharmacological Inhibition of CA-IX Impairs Tumor Cell Proliferation, Migration and Invasiveness*; Int. J. Mol. Sci. **21** 2983
- 6) Andreucci *et al.* (2019), *The carbonic anhydrase IX inhibitor SLC-0111 sensitises cancer cells to conventional chemotherapy*; J. Enzyme Inhib. Med. Chem. **34** 117
- 7) Yin *et al.* (2022), *CA9-Related Acidic Microenvironment Mediates CD8+ T Cell Related Immunosuppression in Pancreatic Cancer*; Front. Oncol. **11** 832315
- 8) Grajek and Poleszczuk (2023), *Carbonic Anhydrase IX Suppression Shifts Partial Response to Checkpoint Inhibitors into Complete Tumor Eradication: Model-Based Investigation*; Int. J. Mol. Sci. **24** 10068

PHYSICAL DATA

Molecular Weight: 309.32
Molecular Formula: C₁₃H₁₂FN₃O₃S
Purity: >98% by HPLC
NMR: (Conforms)
Solubility: DMSO (>25 mg/ml)
Physical Description: White solid
Storage and Stability: Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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