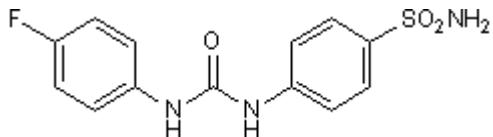


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** U 104**Catalog No.:** 4540**Batch No.:** 1

CAS Number: 178606-66-1

IUPAC Name: 4-[[[(4-Fluorophenyl)amino]carbonyl]amino]-benzesulfonamide

**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>13</sub>H<sub>12</sub>FN<sub>3</sub>O<sub>3</sub>S**Batch Molecular Weight:** 309.32**Physical Appearance:** White solid**Solubility:** DMSO to 100 mM**Storage:** Store at RT**Batch Molecular Structure:****2. ANALYTICAL DATA****TLC:** R<sub>f</sub> = 0.25 (Ethyl acetate:Petroleum ether [1:1])**HPLC:** Shows 100% purity**<sup>1</sup>H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 50.48 3.91 13.58

Found 50.29 3.83 13.55

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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## Product Information

[www.tocris.com](http://www.tocris.com)**Product Name:** U 104**Catalog No.:** 4540**Batch No.:** 1

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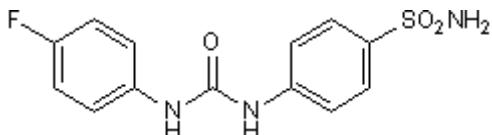
**Description:**

Potent carbonic anhydrase (CA) inhibitor ( $K_i$  values are 4.5, 45.1, 5080 and 9640 nM for CA XII, CA IX, CA I and CA II respectively in MDA-MB-231 cells). Inhibits tumor metastasis in the rat 4T1 metastasis model.

**Physical and Chemical Properties:**Batch Molecular Formula: C<sub>13</sub>H<sub>12</sub>FN<sub>3</sub>O<sub>3</sub>S

Batch Molecular Weight: 309.32

Physical Appearance: White solid

**Minimum Purity:** >99%**Batch Molecular Structure:****Storage:** Store at RT**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Lou et al** (2011) Targeting tumor hypoxia: suppression of breast tumor growth and metastasis by novel carbonic anhydrase IX inhibitors. *Cancer Res.* **71** 3364. PMID: 21415165.

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