PRODUCT: U-104

**ALTERNATE NAME:** 1-(4-fluorophenyl)-3-(4-sulfamoylphenyl)urea; NSC-213841

**CATALOG #:** 9631-5, 25

**AMOUNT:** 5 mg, 25 mg

STRUCTURE:

MOLECULAR FORMULA: C<sub>13</sub>H<sub>12</sub>FN<sub>3</sub>O<sub>3</sub>S

MOLECULAR WEIGHT: 309.32

CAS#: 178606-66-1

APPEARANCE: White solid

**SOLUBILITY:** DMSO (>25 mg/ml)

PURITY: ≥98% by HPLC

STORAGE: Store at -20°C. Protect from air and light

**DESCRIPTION:** U-104 is a ureido-sulfonamide inhibitor of transmembrane

carbonic anhydrase IX (CAIX) ( $K_i$  = 45.1 nM) and XII (CAXII) ( $K_i$  = 4.5 nM). It displays weaker affinity for the cytosolic isoforms, CAI and CAII ( $K_i$ s = 5.08 and 9.64  $\mu$ M, respectively). U-104 associates with CAIX/CAXII only under hypoxic conditions *in vivo*, reducing extracellular acidity and resulting in significant inhibition of tumor growth and metastasis in

experimental models.

**REFERENCE:** Lou, Y., et al. (2011). Cancer Res. **71**, 3364-3376.

HANDLING: Do not take internally. Wear gloves and mask when handling

the product! Avoid contact by all modes of exposure.

## **RELATED PRODUCTS:**

Carbonic anhydrase-3, human recombinant (7833-10, 50)

Human CellExp™ Carbonic anhydrase 10/CA10, human recombinant (7485-10)

Human CellExp™ Carbonic anhydrase 2/CA2, human recombinant (7479-10,50)

Human CellExp™ Carbonic anhydrase 4/CA4, human recombinant (7484-10)

Human CellExp™ Carbonic anhydrase 9/CA9, human recombinant (7478-10)

Carbonic anhydrase-2 Human recombinant (6390-100)

USAGE: FOR RESEARCH USE ONLY! Not to be used in humans!