bio-techne
TOCRIS

Print Date: Mar 13th 2024

# Certificate of Analysis

www.tocris.com

**Product Name:** **SU 5402** **Catalog No.: 3300** **Batch No.: 12**

CAS Number: 215543-92-3

IUPAC Name: 2-[(1,2-Dihydro-2-oxo-3*H*-indol-3-ylidene)methyl]-4-methyl-1*H*-pyrrole-3-propanoic acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{17}H_{16}N_2O_3.¼H_2O$

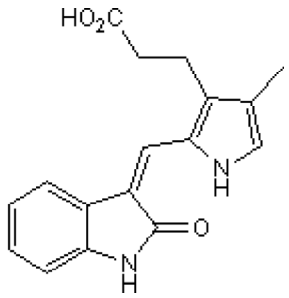
**Batch Molecular Weight:** 300.82

**Physical Appearance:** Orange solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**HPLC:** Shows 99.1% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 67.87 | 5.53 | 9.31 |
| Found | 68.05 | 5.44 | 9.24 |



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**Description:**

SU 5402 is a potent and selective vascular endothelial growth factor receptor (VEGFR) and fibroblast growth factor receptor (FGFR) inhibitor ($IC_{50}$ values are 0.02, 0.03, 0.51 and > 100 µM at VEGFR2, FGFR1, PDGFRβ and EGFR respectively). Inhibits embryonic left-right determination and exhibits potent anticancer activity in vitro and in vivo. Also attenuates integrin β4-induced differentiation of neural stem cells. Supports mESC self-renewal. For more information about how SU 5402 may be used, see our protocol: Accelerated Induction of Cortical Neurons from hiPSCs Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

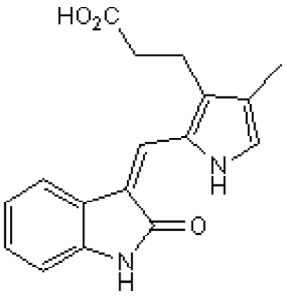
Batch Molecular Formula: $C_{17}H_{16}N_2O_3.¼H_2O$

Batch Molecular Weight: 300.82

Physical Appearance: Orange solid

**Minimum Purity:** ≥95%

**Batch Molecular Structure:**




**Storage:** Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:**

**Su** *et al* (2009) Neural stem cell differentiation is mediated by integrin beta4 *in vitro*. Int.J.Biochem.Cell Biol. ***41*** 916. PMID: 18834954.

**Buehr** *et al* (2008) Capture of authentic embryonic stem cells from rat blastocysts. Cell ***135*** 1287. PMID: 19109897.

**Tanaka** *et al* (2005) FGF-induced vesicular release of sonic hedgehog and retinoic acid in leftward nodal flow is critical for left-right determination. Nature ***435*** 172. PMID: 15889083.