Certificate of Analysis

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Print Date: Apr 26th 2018

Product Name: NS 2028

 CAS Number:
 204326-43-2

 IUPAC Name:
 8-Bromo-1H,4H-[1,2,4]oxadiazolo[3,4-c][1,4]benzoxazin-1-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility:

Batch Molecular Structure:

 $C_9H_5BrN_2O_3$ 269.05 Off White solid DMSO to 100 mM ethanol to 20 mM Store at +4°C

Br

2. ANALYTICAL DATA

Storage:

TLC: HPLC: ¹H NMR: Mass Spectrum: Microanalysis: R_f = 0.75 (Ethyl acetate:Petroleum ether [4:1]) Shows 99.8% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen

Theoretical	40.18	1.87	10.41
Found	40.04	1.91	10.54

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

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Catalog No.: 4517 Batch No.: 2

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Product Information

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Catalog No.: 4517

Batch No.: 2

CAS Number: 204326-43-2

IUPAC Name: 8-Bromo-1*H*,4*H*-[1,2,4]oxadiazolo[3,4-*c*][1,4]benzoxazin-1-one

Description:

Potent soluble guanylyl cyclase (sGC) inhibitor (K_i = 8 nM). Blocks sGC activity in murine cerebellum induced by S-nitrosoglutathione and NMDA (IC_{50} values are 17 and 20 nM respectively). Inhibits VEGF-induced cGMP accumulation; abolishes VEGF-induced migration in postcapillary venular endothelial cells (CVEC).

Physical and Chemical Properties:

Batch Molecular Formula: $C_9H_5BrN_2O_3$ Batch Molecular Weight: 269.05 Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM ethanol to 20 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:

Morbidelli *et al* (2010) The soluble guanylyl cyclase inhibitor NS-2028 reduces vascular endothelial growth factor-induced angiogenesis and permeability. Am.J.Physiol.Regul.Integr.Comp.Physiol. **298** R824. PMID: 20032260.

von Wantoch Rekowski et al (2010) Synthesis and biological evaluation of oxadiazole derivatives as inhibitors of soluble guanylyl cyclase. Bioorg.Med.Chem. 18 1288. PMID: 20036129.

Olesen *et al* (1998) Characterization of NS 2028 as a specific inhibitor of soluble guanylyl cyclase. Br.J.Pharmacol. **123** 299. PMID: 9489619.

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