

# **Certificate of Analysis**

Print Date: Aug 5th 2019

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Product Name: MS 436 Catalog No.: 5173 Batch No.: 1

CAS Number: 1395084-25-9

IUPAC Name: (E)-4-[2-(2-Amino-4-hydroxy-5-methylphenyl)diazenyl]-N-2-pyridinylbenzenesulfonamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{18}H_{17}N_5O_3S.1\frac{1}{4}H_2O$ 

Batch Molecular Weight: 405.94
Physical Appearance: Red solid

Solubility: DMSO to 100 mM Storage: Store at -20°C

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.48$  (Dichloromethane:Methanol [9:1])

**HPLC:** Shows 99.0% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 53.26 4.84 17.25 Found 53.23 4.7 16.86

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## **Product Information**

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IUPAC Name: (E)-4-[2-(2-Amino-4-hydroxy-5-methylphenyl)diazenyl]-N-2-pyridinylbenzenesulfonamide

## **Description:**

Potent and selective BRD4 bromodomain inhibitor ( $K_i$  = 30 - 50 nM for the first bromodomain (BRD4(1)). Exhibits 10-fold selectivity for BRD4(1) over BRD4(2). Blocks BRD4 transcriptional activity in lipopolysaccharide-induced production of both nitric oxide and IL-6 in mouse macrophages (IC<sub>50</sub> values are 3.8 and 4.9  $\mu$ M, respectively). Attenuates melanoma cell proliferation in vitro.

### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>18</sub>H<sub>17</sub>N<sub>5</sub>O<sub>3</sub>S.11/4H<sub>2</sub>O

Batch Molecular Weight: 405.94 Physical Appearance: Red solid

## **Minimum Purity:** >98%

### **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

### 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.

## **Licensing Information:**

Sold under license from Icahn School of Medicine at Mount Sinai.

#### References:

**Segura** *et al* (2013) BRD4 sustains melanoma proliferation and represents a new target for epigenetic therapy. Cancer Res. **73** 6264. PMID: 23950209.

**Zhang** et al (2013) Structure-guided design of potent diazobenzene inhibitors for the BET bromodomains. J.Med.Chem. **56** 9251. PMID: 24144283.

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