

# Certificate of Analysis

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**Product Name:** BAY 41-8543

**Catalog No.:** 5708

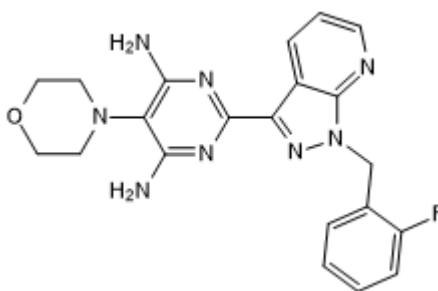
**Batch No.:** 1

CAS Number: 256498-66-5

IUPAC Name: 2-[1-[(2-Fluorophenyl)methyl]-1*H*-pyrazolo[3,4-*b*]pyridin-3-yl]-5-(4-morpholinyl)-4,6-pyrimidinediamine

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>21</sub> H <sub>21</sub> FN <sub>8</sub> O
<b>Batch Molecular Weight:</b>	420.44
<b>Physical Appearance:</b>	Beige solid
<b>Solubility:</b>	DMSO to 10 mM with gentle warming
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.1% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	59.99	5.03	26.64
Found	59.81	4.88	26.87

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

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**Description:**

Guanylyl cyclase (sGC) stimulator. Increases activity of sGC by up to 92-fold at concentrations up to 100  $\mu$ M. Induces relaxation of aorta, saphenous arteries, coronary arteries and veins *in vitro*. Inhibits collagen-induced platelet aggregation. Promotes lipid uptake into brown adipose tissue and increases energy expenditure in mice. Induces weight loss in obese mice. Antihypertensive.

**Physical and Chemical Properties:**

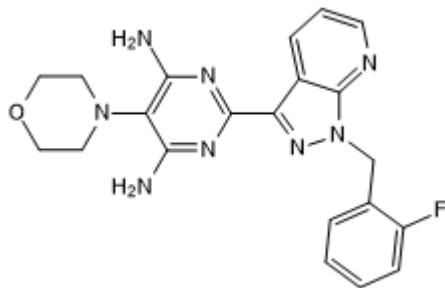
Batch Molecular Formula: C<sub>21</sub>H<sub>21</sub>FN<sub>8</sub>O

Batch Molecular Weight: 420.44

Physical Appearance: Beige solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 10 mM with gentle warming

**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:**

**Hoffmann et al** (2015) Stimulation of soluble guanylyl cyclase protects against obesity by recruiting brown adipose tissue. *Nat. Commun.* **6** 7235. PMID: 26011238.

**Stasch et al** (2002) Pharmacological actions of a novel NO-independent guanylyl cyclase stimulator, BAY 41-8543: *in vitro* studies. *Br.J.Pharmacol.* **135** 333. PMID: 11815368.

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