

## ZM-306416

Kinase Inhibitor

### Catalog # F11-900B

Lot # T4382-9

CAS # 690206-97-4

### Product Description

Molecular Formula: C<sub>16</sub>H<sub>13</sub>ClFN<sub>3</sub>O<sub>2</sub>

Appearance: Off-white powder

Melting Point: N/A

Molecular Weight: 333.7

Purity: >98% (TLC); NMR (Conforms)

Solubilization: May be dissolved in DMSO (3 mg/ml); or ethanol (1 mg/ml)

### Alias

4-[(4'-Chloro-2'-fluoro) phenylamino]-6,7-dimethoxyquinazoline

### Specific Activity

VEGFR inhibitor

### Storage and Stability

Store desiccated as supplied at ambient temperature for up to 2 years. Store solutions at -20°C for up to 3 months.

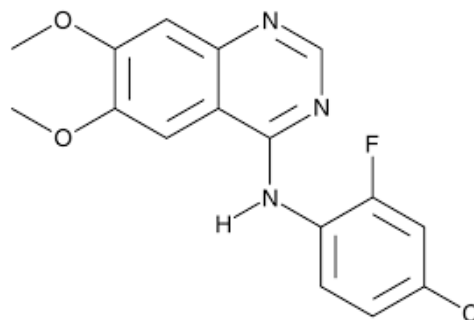
### Scientific Background

Potent inhibitor of VEGF receptor tyrosine kinase, inhibiting KDR (IC<sub>50</sub> = 100 nM) and Flt (IC<sub>50</sub> = 2 μM). Displays ca 4-fold selectivity over FGFR-1. Orally active (100 mg/kg, rat) (1). More recently identified in a high-content biosensor-based screen as also inhibiting EGFR (2). Has also been employed as a PGF/FLT1 inhibitor (3)

### References

1. LF Hennequin *et al* *J. Med. Chem.* 1999 42:5369
2. C Antczak *et al* *J. Biomol. Screen.* 2012 17:885
3. W-B Wu *et al* *Reproduction* 2017 154:319

### Molecular Structure



## ZM-306416

Kinase Inhibitor

Catalog #

F11-900B

CAS #

690206-97-4

Lot #

T4382-9

Purity

>98% (TLC); NMR conforms

Format

Lyophilized powder

Solubilization

May be dissolved in DMSO (3 mg/ml); or ethanol (1 mg/ml)

Storage & Shipping

Store desiccated as supplied at ambient temperature for up to 2 years. Store solutions at -20°C for up to 3 months.

# SAFETY DATA SHEET

## Article 1 – Identification of the Substance

**Product Name: ZM-306416**

**Catalog # F11-900B**

*This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.*

Manufacturer's Name: SignalChem Biotech Inc.  
Street Address: 110-13120 Vanier Place  
City, Prov. Postal Code: Richmond, BC, V6V 2J2  
Fax: 604-232-4601  
EMERGENCY PHONE: 604-232-4600

## Article 2 - Hazardous Identification

### 2.1 Classification of Substance (GHS)

Skin Corrosion/Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 2  
Specific target organ toxicity – (single exposure) Category 3

### 2.2 Label Elements

Classification according to Regulation (EC) No 1272/2008



GHS07

**GHS Signal Word: WARNING**

### GHS Hazard Phrases:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation

### GHS Precaution Phrases:

P260	Do not breathe dust/fume/gas/mist/vapors/spray
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### GHS Response Phrases:

P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P308+313	IF exposed or concerned: Get medical attention/advice.
P332+313	If skin irritation occurs, get medical advice/attention.
P362+364	Take off contaminated clothing and wash it before reuse.

### GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal Information

**2.3 Adverse Human Health Effects and Symptoms:** Causes serious eye irritation. Causes skin irritation. Material may be irritating to mucous membranes and upper respiratory tract. May be harmful by inhalation, ingestion, or skin absorption. May cause respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

## Article 3 – Composition/Information on Ingredients

### 3.1 Substance

**Product Name(s):** ZM-306416  
**Chemical Name:** 4-[(4'-Chloro-2'-fluoro) phenylamino]-6,7-dimethoxyquinazoline  
**Molecular Formula:** C<sub>16</sub>H<sub>13</sub>ClFN<sub>3</sub>O<sub>2</sub>

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**CAS Number:** 690206-97-4  
**Concentration:** 100%

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## Article 4 – First Aid

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### 4.1 Description of First Aid Measures

**General:** Move out of dangerous area and contact a doctor. Provide them with this data sheet.

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

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## Article 5 – Fire Fighting Measures

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### 5.1 Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient.

### 5.2 Special Hazards

No data available.

### 5.3 Precautions for Fire Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

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## Article 6 – Accidental Release Measures

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### 6.1 Personal Precautions

Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

### 6.2 Environmental Precautions

Take steps to avoid release into the environment, if safe to do so.

### 6.3 Methods for Containment and Clean-up

Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

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## Article 7 – Handling and Storage

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### 7.1 Handling Precautions

Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.

### 7.2 Safe Storage Measures

Keep container tightly closed. Store in accordance with information listed on this data sheet.

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## Article 8 – Exposure Controls/Personal Protection

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### 8.1 Control Parameters

Contains no substances with occupational exposure limit values.

### 8.2 Specific Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

### 8.3 Personal Protection

**Eye/Face Protection:** Use safety glasses.

**Skin Protection:** Use chemical resistant gloves. Remove and dispose of gloves properly after use. Wash hands thoroughly after use.

**Body Protection:** Wear a lab coat.

**Respiratory Protection:** NIOSH approved respirator, as conditions warrant.

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## Article 9 – Physical and Chemical Properties

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**Appearance:** Off-white powder

**Odour:** data not available

**Odour Threshold:** data not available

**pH:** data not available

**Melting/Freezing Pt:** data not available

**Boiling Pt:** data not available

**Flash Pt:** data not available

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**Explosive Properties:** data not available

**Solubility notes:** May be dissolved in DMSO (3 mg/ml); or ethanol (1 mg/ml)

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## Article 10 – Stability and Reactivity

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**10.1 Stability:** Stable under recommended transport or storage conditions

**10.2 Conditions to Avoid:** No data available.

**10.3 Incompatibility – Materials to Avoid:** Strong oxidizing agents

**10.4 Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide, hydrogen fluoride, nitrogen oxides, phosgene.

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## Article 11– Toxicological Information

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**11.1 Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

**Acute Toxicity:** data not available

**Chronic Toxicity:** data not available

**Skin Corrosion/Irritation:** data not available

**Eye Damage/Irritation:** data not available

**Respiratory or Skin Sensitization:** data not available

**Germ Cell Mutagenicity:** data not available

**Carcinogenicity:** None according to NIOSH

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## Article 12 – Ecological Information

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### 12.1 Toxicity

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

### 12.2 Degradability

Data not available

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## Article 13 – Disposal Considerations

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### 13.1 Waste Treatment

Dispose in accordance with local, state, and federal regulations.

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## Article 14 – Transport Information

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### 14.1 DOT

Not dangerous goods

### 14.2 IMDG

Not dangerous goods

### 14.2 IATA

Not dangerous goods

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## Article 15 – Regulatory Information

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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

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## Article 16 – Other Information

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The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.

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