

# **Certificate of Analysis**

Print Date: Jan 14<sup>th</sup> 2016 **WWW.tocris.com** 

Product Name: IKK 16 Catalog No.: 2539 Batch No.: 2

CAS Number: 1186195-62-9

IUPAC Name: N-(4-Pyrrolidin-1-yl-piperidin-1-yl)-[4-(4-benzo[b]thiophen-2-yl-pyrimidin-2-ylamino)phenyl]carboxamide

hydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:  $C_{28}H_{29}N_5OS.HCl.$  ¼ $H_2O$ 

Batch Molecular Weight: 524.59

Physical Appearance: Beige solid

Solubility: water to 50 mM

DMSO to 50 mM

Storage: Desiccate at -20°C

**Batch Molecular Structure:** 

# 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.44$  (Dichloromethane:Methanol:Ammonia soln. [90:9:1])

HPLC: Shows >98.7% purity

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

Mass Spectrum: Consistent with structure

**UV Spectrum:** 14-0735

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 64.11 5.86 13.35 Found 63.88 5.82 13.04



# **Product Information**

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#### Description:

Selective inhibitor of IkB kinase (IKK) (IC $_{50}$  values are 40, 70 and 200 nM for IKK $\beta$ , IKK complex and IKK $\alpha$  respectively). Inhibits TNF- $\alpha$ -stimulated IkB degradation and expression of adhesion molecules E-selectin, ICAM and VCAM (IC $_{50}$  values are 1.0, 0.5, 0.3 and 0.3  $\mu$ M respectively). Inhibits LPS-induced TNF- $\alpha$  release in vivo and neutrophil extravasion in thioglycollate-induced peritonitis.

# **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>28</sub>H<sub>29</sub>N<sub>5</sub>OS.HCl.1/4 H<sub>2</sub>O

Batch Molecular Weight: 524.59 Physical Appearance: Beige solid

**Minimum Purity:** >98%

## **Batch Molecular Structure:**

Storage: Desiccate at -20°C

# Solubility & Usage Info:

water to 50 mM DMSO to 50 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:

Waelchli et al (2006) Design and preparation of 2-benzoamido-pyrimidines as inhibitors of IKK. Bioorg.Med.Chem.Lett. 16 108. PMID: 16236504.