



# **Certificate of Analysis**

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Product Name: PKC 412 Catalog No.: 2992 Batch No.: 5

CAS Number: 120685-11-2

IUPAC Name:  $[9S-(9\alpha,10\beta,11\beta,13\alpha)]-N-(2,3,10,11,12,13-Hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1H,9H-diindolomethyl-1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-oxo-9,1-o$ 

[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl)-N-methylbenzamide

# 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:  $C_{35}H_{30}N_4O_4$ 

**Batch Molecular Weight:** 570.64

Physical Appearance: White solid

Solubility: DMSO to 15 mM Storage: Store at -20°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

**HPLC:** Shows 99.7% purity

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# **Product Information**

Print Date: Apr 22<sup>nd</sup> 2020

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IUPAC Name: [9S-(9α,10β,11β,13α)]-N-(2,3,10,11,12,13-Hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1H,9H-diindolo

[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl)-N-methylbenzamide

#### **Description:**

Broad spectrum protein kinase inhibitor. Inhibits conventional PKC isoforms ( $\alpha$ ,  $\beta$ ,  $\gamma$ ), PDFR $\beta$ , VEGFR2, Syk, PKC $\eta$ , Flk-1, Flt3, Cdk1/B, PKA, c-Kit, c-Fgr, c-Src, VEGFR1, EGFR and MARK (microtubule affinity regulating kinase). Displays potent antitumor activity. Identified as targeting human host cell proteins that interact with SARS-CoV-2.

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

Batch Molecular Formula: C<sub>35</sub>H<sub>30</sub>N<sub>4</sub>O<sub>4</sub> Batch Molecular Weight: 570.64 Physical Appearance: White solid

Minimum Purity: ≥98%

#### **Batch Molecular Structure:**

Storage: Store at -20°C

# Solubility & Usage Info:

DMSO to 15 mM

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

# 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:

**Gordon** *et al* (2020) A SARS-CoV-2-human protein-protein interaction map reveals drug targets and potential drug-repurposing. BioRxiv - Paper not yet peer reviewed.

Nakazono-Kusaba et al (2004) PKC412 induces apoptosis through a caspase-dependent mechanism in human keloid-derived fibroblasts. Eur.J.Pharmacol. 497 155. PMID: 15306200.

**Tenzer** *et al* (2001) The phosphatidylinositide 3'-kinase/Akt survival pathway is a target for the anticancer and radiosensitizing agent PKC412, an inhibitor of protein kinase C. Cancer Res. *61* 8203. PMID: 11719451.

Fabbro et al (2000) PKC412 - a protein kinase inhibitor with a broad therapeutic potential. Anticancer Drug Des. 15 17. PMID: 10888033.

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