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## Product Data Sheet

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Product Name: MMP Inhibitor II

Cat. No.: GC11764

**Chemical Properties**

Cas. No. 203915-59-7

Chemical Name hexahydro-N-hydroxy-1,3-*bis*[(4-methoxyphenyl)sulfonyl]-5,5-dimethyl-2-pyrimidinecarboxamideSMILES COC1=CC=C(S(N2CC(C)(C)CN(S(C3=CC=C(OC)C=C3))(=O)=O)C2C(NO)=O)(=O)=O)C=C1Formula C<sub>21</sub>H<sub>27</sub>N<sub>3</sub>O<sub>8</sub>S<sub>2</sub> M.Wt 513.6

Solubility ≤0.5mg/ml in ethanol;20mg/ml in DMSO;30mg/ml in dimethyl formamide Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

MMP Inhibitor II is a potent, reversible and broad-range inhibitor of matrix metalloproteinases (MMPs) with IC<sub>50</sub> values of 24 nM, 18.4 nM, 30 nM and 2.7 nM for MMP-1, MMP-3, MMP-7 and MMP-9, respectively [1].

MMPs belong to a family of at least fifteen secreted and membrane-bound zinc-endopeptidases. MMPs have been engaged in several pathological processes, including tumor growth and metastasis, arthritis, multiple sclerosis, and periodontal disease. These enzymes play a vital role in tissue repair and remodeling via degrading all the extracellular matrix components, including fibrillar and non-fibrillar collagens, laminin, fibronectin, and basement membrane glycoproteins, which enables cell migration. In addition, MMPs exert function in metastasis by promoting tumor invasion and angiogenesis. It was shown that the expression of various members of the MMP family

**Caution: Product has not been fully validated for medical applications. For research use only.**

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by tumors is closely associated with their proliferative and invasive behavior and metastatic potential. Furthermore, MMPs are broadly sub-divided into three classes: stromelysins, gelatinases, and collagenases, which are secreted in a proenzyme form and require activation to digest an extracellular matrix [1].

In vitro: Up to now, in vitro study of MMP Inhibitor II is still in the development stage.

In vivo: Up to now, in vivo study of MMP Inhibitor II is still in the development stage.

Reference:

[1]. Slawomir M. Wojtowicz-Praga, Robert B. Dickson and Michael J. Hawkins. Matrix metalloproteinase inhibitors. *Investigational New Drugs*. 1997; 15: 61-75.

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