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**Product Data Sheet**

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Product Name: Cellocidin

Cat. No.: GC18392

**Chemical Properties**

Cas. No. 543-21-5

Chemical Name 2-butynediamide

SMILES NC(C#CC(N)=O)=OFormula  $C_4H_4N_2O_2$ 

M.Wt 112.1

Solubility DMF: 10 mg/ml, DMSO: 20 mg/ml, DMSO:PBS (pH 7.2)  
(1:7): 0.12 mg/ml

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**

Cellocidin is an antibiotic originally isolated from *S. chibaensis*. It is active against various bacterial strains including *M. tuberculosis* and against the trypanosomes *T. brucei* and *T. rhodesiense* (IC<sub>50</sub>s = 150 and 30 ng/ml, respectively). It inhibits proliferation of LCL1 and LCL2 cells transformed by Epstein-Barr virus (EBV), activates the c-Myc and NF-κB pathways in BC3 and LCL1 cells, and induces necrotic cell death in B cells infected with gammaherpes virus. Cellocidin (100-200 ppm) is protective against bacterial leaf blight in rice plants and inhibits α-ketoglutarate oxidation in *X. oryzae*, the bacterium that causes leaf blight, when used at a concentration of 1 ppm, suggesting that it inhibits the citric acid cycle. Formulations containing cellocidin have been used as agricultural pesticides.

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

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