

## Product Data Sheet

Product Name: Sodium copper chlorophyllin

Cat. No.: GC32192

### Chemical Properties

Cas. No. 28302-36-5

SMILES [O-]C(CC1=C(C(C([O-])=O)=C(C)C2=CC3=[N]4C(C(C=O)=C3CC)=CC5=C(C=C)C(C)=C6[N-]75)[N-]2[Cu+2]47[N](C8=C6)=C1C(C8C)CCC([O-])=O)=O.[Na+].[Na+].[Na+]

Formula  $C_{34}H_{29}CuN_4Na_3O_7$  M.Wt 738.13

Solubility Water : 10 mg/mL (13.55 mM);DMSO : 6.67 mg/mL (9.04 mM) 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

### Protocol

#### Cell experiment:

MT-2 cells are pre-incubated to the bamboo leaf extract solution (up to 10%), Sodium copper chlorophyllin (up to 5 mM) or test reagent-free culture medium for 10 min to assess the inhibitory activity at adsorption. The pre-incubated cells are washed extensively to be able to eliminate antiviral activity of test reagents remaining in the culture medium, and then they are exposed to HIV-1LAI ( $1.3 \times 10^{-4}$  TCID<sub>50</sub> per cell). In addition to these pre-incubated cells, control wells are prepared to evaluate growth of the cells in a virus-free condition. Then, virus-exposed and mock-exposed cells are cultured in the absence of test reagents for three days. The total viable cells are counted on day 3[1].

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

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### References:

[1]. Akiko Ito, et al.  
In Vitro Inhibition of  
Cytopathic Effect of  
Influenza Virus and  
Human  
Immunodeficiency  
Virus by Bamboo  
Leaf Extract Solution  
and Sodium Copper  
Chlorophyllin.  
Yonago Acta Med.  
2016 Mar; 59(1): 61-  
65.

### Background

Sodium copper chlorophyllin exerts antiviral activities against Influenza virus and HIV with IC50s of 50 to 100  $\mu$ M for both of them.

Sodium copper chlorophyllin exhibits influenza virus adsorption at 200  $\mu$ M ( $P < 0.05$ ). The 50% inhibitory concentration (IC50) and the 50% cytotoxic concentration (CC50) of Sodium copper chlorophyllin lay from 50 to 100  $\mu$ M and 200 to 400  $\mu$ M, respectively. Sodium copper chlorophyllin also inhibits HIV adsorption at 2.5 mM ( $P < 0.05$ ). The IC50 and CC50 of Sodium copper chlorophyllin lay from 50 to 100  $\mu$ M and 200 to 400  $\mu$ M, respectively[1].

[1]. Akiko Ito, et al. In Vitro Inhibition of Cytopathic Effect of Influenza Virus and Human Immunodeficiency Virus by Bamboo Leaf Extract Solution and Sodium Copper Chlorophyllin. Yonago Acta Med. 2016 Mar; 59(1): 61-65.

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