



Product Information Sheet

M5600 Meropenem Trihydrate

Synonyms: (4R,5S,6S)-3-[(3S,5S)-5-(dimethylcarbamoyl)pyrrolidin-3-yl]sulfanyl-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid

CAS: 119478-56-7

Formula: $C_{17}H_{25}N_3O_5S \cdot 3H_2O$

Mol. Weight: 383.46 g/mol

Properties:

Form: Powder

Appearance: White to Light Yellow

Application: Antibiotic

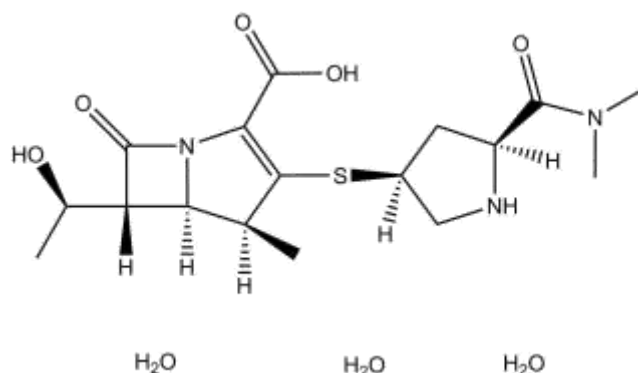
Solubility: 5 mg/mL in Water,
>20 mg/mL in DMSO

Storage Temp: -20°C

Typical Working Concentration: Varies by application. Concentration

should be determined by end user.

Other Notes: Plant Tissue Culture Tested



Application Notes:

Meropenem is a broad spectrum antibiotic with activity against Gram-positive and Gram-negative bacteria. It is a beta-lactam antibiotic which inhibits bacterial wall synthesis and belongs to the subgroup of carbapenem. It has been shown to suppress *Agrobacterium* growth in tobacco, tomato, and rice transformations at 25 mg/L (Ogawa and Masahiro, 2007). In a β -lactamase expressing strain of *Agrobacterium* (EHA101), it has been shown to be one of the more effective antibiotics (Okawa and Mii, 2004)

References:

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Ogawa Y and M Mii (2004) Screening for highly active β -lactam antibiotics against *Agrobacterium tumefaciens*. *Arch. Microbiol.* Vol. 181(4):331-336.

Ogawa Y and M Mii (2007) Meropenem and moxalactam: Novel β -lactam antibiotics for efficient *Agrobacterium*-mediated transformation. *Plant Science* 172:564-572