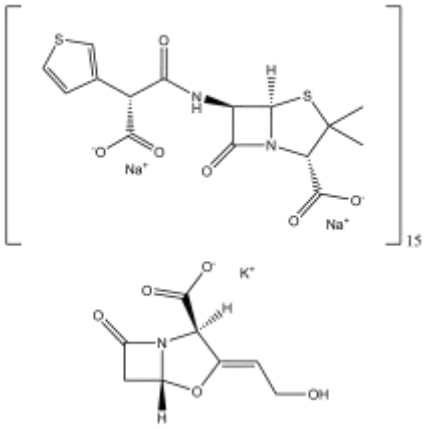
Product Information Sheet

T869
Timentin



Synonym:	Ticarcillin Disodium Salt/ Potassium Clavulanate mixture (15:1), Betabactyl
CAS:	4697-14-7/ 61177-45-5
Formula:	$C_{15}H_{14}N_2Na_2O_6S_2$/ $C_8H_8KNO_5$
MW:	428.39/ 237.25 g/mol

Properties:

Form:	Powder
Appearance:	Off-white to Yellow Powder
Application:	Plant Tissue Culture Antibiotic
Solubility:	Water
Typical Working Concentration:	50-200 mg/L
Storage Temp:	2-8°C
Storage Temp of Stock Solution:	-20°C
Other Notes:	Plant Tissue Culture Tested

Application Notes:

Timentin is a mixture of ticarcillin and clavulanic acid. Ticarcillin is a broad spectrum semisynthetic penicillin with greater antibacterial activity toward gram negative rod-shaped bacteria than gram positive cocci (Brogden *et al.* 1980). Clavulanic acid is a β -Lactamase competitive inhibitor which confers stability to β-lactam ring-containing antibiotics (e.g. penicillin, ticarcillin, cefotaxime, carbenicillin, etc.) in the presence of β-Lactamase expressing bacteria (Reading and Cole 1977). Timentin is used most commonly in the regeneration medium for elimination of the *Agrobacterium* post-transformation of foreign DNA into plant cells (Cheng *et al.*1998).

*Phyto*Technology Laboratories® also carries Timentin solution at 50 mg/mL, Product No. T7869, and at 100 mg/mL, Product No. T767.

Please Note: While *Phyto*Technology Laboratories™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References:

Brogden RN, Heel RC, Speight TM, and GS Avery (1980) Ticarcillin: A Review of its Pharmacological Properties and Therapeutic Efficacy. *Drugs* 20(5):325-352

Cheng ZM, Schnurr JA, and JA Kapaun (1998) Timentin as an alternative antibiotic for suppression of Agrobacterium tumefaciens in genetic transformation. *Plant Cell Reports*.17(8):646-649.

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Reading C, and M Cole (1977) Clavulanic Acid: a Beta-Lactamase-Inhibiting Beta Lactam from Streptomyces clavuligerus. Antimicrobial Agents and Chemotheraphy. 11(5):852-857.

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