

## Zeocin

Catalogue #: MA015  
Storage:  $-20^{\circ}\text{C}$   
Size: 1mL

### Zeocin, 100mg/mL

#### **Description:**

$\text{C}_{55}\text{H}_{83}\text{N}_{19}\text{O}_{21}\text{S}_2\text{Cu}$   
MW: 1137.4

Cell culture grade.

#### **Application:**

Zeocin is a copper-chelated glycopeptide antibiotic isolated from culture broth of a *Streptomyces verticillus* mutant. Zeocin is a versatile, cost effective antibiotic to use for selection. This unique antibiotic shows high toxicity in mammalian cells, plants, yeasts, and bacteria. Zeocin acts by binding to DNA and cleaving it, causing cell death.

Zeocin allows the selection of cells expressing the *Sh ble* gene. As there is no cross resistance with other currently used animal cells markers, this antibiotic can also be used to isolate clones resistant to other selecting agents (e.g. geneticin, hygromycin). Zeocin is a glycopeptide antibiotic of the bleomycin family. It is active in vivo against most bacteria (including *E. coli*), eukaryotic microorganisms (i.e. yeasts), plant cells, and animal cells.

#### **USAGE:**

- Liquid Zeocin is ready for cell culture.
- The concentration of Zeocin required for selection of transformants is pH and salt concentration dependent. The higher the pH and the lower the salt concentration, the better is Zeocin activity.
- Selection of common *E. coli* strains is achieved at 25  $\mu\text{g}/\text{ml}$  zeocin in Low Salt LB Agar medium adjusted to pH 7.5
- Selection of animal cells: 100 to 750  $\mu\text{g}/\text{ml}$  depending on the cell line.
- Selection of plant cells: 50 to 250  $\mu\text{g}/\text{ml}$  depending on species and media.
- Selection of yeasts: Depends on species and media. *S. cerevisiae* *Sh ble* transformants are selected at 50  $\mu\text{g}/\text{ml}$  in YPD at pH 7.0

**For resaech use only**