| Bio | <b>Vis</b> | ion |
|-----|------------|-----|
|     |            |     |

HANDLING:

| Product:           | Cantharidin                                                                                                                                                                                                                                                          | RELATED PRODUCTS:<br>Bakuchiol (Cat. No. 2494-1, 5)                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALTERNATE NAME:    | (3aR,4S,7R,7aS)-rel-hexahydro-3a,7a-dimethyl-4,7-<br>epoxyisobenzofuran-1,3-dione; NSC 61805                                                                                                                                                                         | bpV(phen) <b>(Cat. No. 1793-5)</b><br>bpV(pic) <b>(Cat. No. 1794-5)</b><br>Calyculin A <b>(Cat. No. 1562-025)</b>                                                                                                                                                                                                                                                                                                                            |
| CATALOG #:         | 2510-10, 50                                                                                                                                                                                                                                                          | EZBlock™ Phosphatase Inhibitor Cocktail I (Cat. No. K273-1ML, 1EA)                                                                                                                                                                                                                                                                                                                                                                           |
| AMOUNT:            | 10 mg, 50 mg                                                                                                                                                                                                                                                         | EZBlock <sup>™</sup> Phosphatase Inhibitor Cocktail II (Cat. No. K275-1ML, 1EA)<br>EZBlock <sup>™</sup> Phosphatase Inhibitor Cocktail III (Cat. No. K276-1ML, 1EA)<br>Microcystin-LR (Cat. No. 1840-100, 500)<br>Okadaic Acid (Cat. No. 1543-025)<br>Okadaic Acid, Ammonium Salt (Cat. No. 1766-025)<br>Okadaic Acid, Potassium Salt (Cat. No. 1765-025)<br>Okadaic Acid, Sodium Salt (Cat. No. 1764-025)<br>VO-OHpic (Cat. No. 1801-5, 25) |
| STRUCTURE:         | H <sub>3</sub> C <sup>H</sup> <sub>3</sub> O                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MOLECULAR FORMULA: | $C_{10}H_{12}O_4$                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MOLECULAR WEIGHT:  | 196.20                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CAS No.            | 56-25-7                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| APPEARANCE:        | White solid                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SOLUBILITY:        | DMSO (~10 mg/ml) or EtOH (~ 8 mg/ml)                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| PURITY:            | >98% by HPLC                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| STORAGE:           | Store at -20°C. Protect from air and moisture                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DESCRIPTION:       | Cantharidin is a natural toxin produced by blister beetles that moderately inhibits protein phosphatases 1 (PP1) (IC <sub>50</sub> = 1.7 $\mu$ M) and PP2A (IC <sub>50</sub> = 0.2 $\mu$ M) and only weakly inhibits the activity of PP2B (IC <sub>50</sub> = 1 mM). |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| REFERENCES:        | Honkanen, R.E., <i>et al.</i> (1993). FEBS Lett. <b>330,</b> 283-286.                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                    |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.