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[54] **ISOLATED GENES AND PROTEINS ENCODING RESISTANCE TO PHOTOSENSITIZERS**

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[58] **Field of Search** 536/23.6; 435/69.1, 435/410, 419; 800/279, 278, 317.3

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[57] **ABSTRACT**

The present invention is drawn to methods and compounds for providing resistance to photosensitizers in cells and organisms that are sensitive to photosensitizers. Specifically, an isolated nucleic acid molecule, which upon expression provides resistance to a photosensitizer, is described. Also described are methods of transforming cells and organisms with the isolated nucleic acid molecule, such that resistance to a photosensitizer is increased or provided to the cells and organisms so transformed.

42 Claims, 5 Drawing Sheets