

## 1. PRODUCT AND COMPANY INFORMATION

### 1.1 Product Identifiers

Product Name: ZW800-1, CARBOXYLIC ACID  
 Product Number: 1mg: 97-02-01-0007;  
 10mg: 97-02-01-0008  
 CAS-No.: 1239619-02-3

### 1.2 Product Information

ZW800-1 is the world's first zwitterionic 800 nm near-infrared fluorophore. It exhibits extremely low non-specific binding in vitro and in vivo and can be used for a variety of applications such as angiography, ureter imaging, and thoracic duct imaging.

### 1.3 Details of the supplier for the Instructions for Use

Company: Curadel ResVet Imaging, LLC  
 377 Plantation Street  
 Worcester, MA 01605  
 USA  
 Telephone: 774-243-9515  
 Fax: 774-243-9517  
 E-mail: [support@resvet.curadel.com](mailto:support@resvet.curadel.com)  
 URL: [www.curadelresvetimaging.com](http://www.curadelresvetimaging.com)

### 1.4 Emergency Telephone Number

Emergency Phone #: 774-243-9515

## 2. HANDLING

### Precautions

**This contrast agent is intended for laboratory research use only. Not for diagnostic procedures. Not for veterinary or human use.**

Wear appropriate protective equipment including laboratory coat, gloves, and eyewear. Avoid contact with skin, eyes, and mouth. Contrast agent will stain clothing and skin.

### Preparation

ZW800-1-CA can be prepared as a stock solution in dimethyl sulfoxide (DMSO) at a concentration up to 2.50 mg/mL (2.36 mM).

Alternative: ZW800-1-CA can be prepared as a stock solution in water at a concentration up to 30 mg/mL (28.4 mM).

**Do not use** neutral pH, salt-containing solvents, such as saline and phosphate buffers, for stock solutions because precipitation may occur over time.

**Sterile Use:** Whenever sterile use is intended, for example, intravenous injection into a research animal or addition to cell culture medium, filter the final NIR fluorophore solution through a 0.22 µm filter.

### Storage

Lyophilized powder can be stored at room temperature up to one year. Protect from light. Stock solutions should be kept at 4-8 °C when in DMSO. Stock solutions in water should be kept at -20 C.

Avoid excessive freeze/thaw cycles by aliquoting solution prior to freezing.

Discard stock solutions after 3 months when stored properly.

Discard stock solutions after 1 week when stored at room temperature.

### 3. USAGE

#### Angiography

Vascular phase, with sequential highlighting of arteries, capillaries, and veins, occurs within 5-15 seconds after intravenous bolus injection.

Mouse: Typically inject 10 nmol of ZW800-1 intravenously in SWI or D5W.

Rat: Typically inject 100 nmol of ZW800-1 intravenously in SWI or D5W.

#### Ureter Imaging

Depending on hydration status of the organism, highlighting of the ureters begins approximately 3-10 minutes after intravenous injection, peaks at approximately 15 minutes, and remains bright for an additional 60-90 minutes.

Mouse: Typically inject 10 nmol of ZW800-1 intravenously in SWI or D5W.

Rat: Typically inject 100 nmol of ZW800-1 intravenously in SWI or D5W.

#### Thoracic Duct Imaging

Multiple injection sites below the diaphragm result in highlighting of the thoracic duct. Most convenient is a subcutaneous injection into the medial aspect of the thigh.

Mouse: Typically inject 10 nmol of ZW800-1 in SWI or D5W subcutaneously or intranodally.

Rat: Inject 100 nmol of ZW800-1 in SWI or D5W subcutaneously or intranodally.

#### Amine Conjugation

For amine bioconjugation, see ZW800-1-NHS product listing. ZW800-1 itself can be converted to a reactive intermediate using any standard procedure because the only reactive group is its carboxylic acid. Avoid basic conditions (> pH 8) in water or the molecule can be damaged.

Abbreviations: SWI = sterile water for injection. D5W = sterile 5% dextrose in water