

Product Number  
**926-50001**

Storage: -20°C  
prior to reconstitution;  
4°C after reconstitution

Revised: May 2011

Updates available at:  
<http://biosupport.licor.com>

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Doc # 988-12110

**LI-COR**

Biosciences

4647 Superior Street • P.O. Box 4000  
Lincoln, Nebraska 68504 USA  
North America: 800-645-4267  
International: 402-467-0700  
FAX: 402-467-0819

LI-COR GmbH Germany, Serving Europe,  
Middle East and Africa: +49 (0) 6172 17 17 771  
LI-COR UK Ltd. UK, Serving UK, Ireland, and  
Scandinavia: +44 (0) 1223 422104  
All other countries, contact LI-COR Biosciences  
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**BrightSite**  
Small Animal Imaging Agents

## IRDye® 800CW HA Optical Probe

IRDye 800CW HA (hyaluronan) Optical Probe from LI-COR® Biosciences is a near-infrared labeled optical imaging agent for small animal imaging.

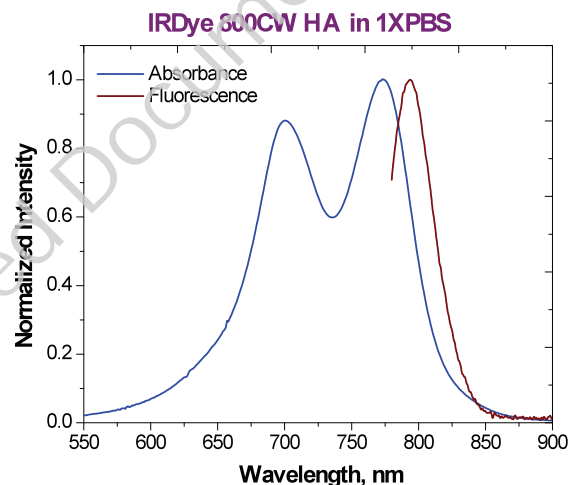
### I. Description

Hyaluronan (hyaluronic acid; HA) is an extracellular matrix glycosaminoglycan formed from disaccharide units containing N-acetylglucosamine and glucuronic acid. HA interacts with several cell surface receptors, namely CD44, RHAMM (receptor for hyaluronan mediated motility; CD168), LYVE-1 (lymphatic vessel endothelial HA receptor-1), HARE (hyaluronan receptor for endocytosis), layilin, and Toll-4. It binds to proteoglycans in cartilage and other tissues and fills an important structural role in the organization of the extracellular matrix. The agent is catabolized by receptor-mediated endocytosis and lysosomal degradation after transport via lymph to lymph nodes.

### II. Material

The IRDye 800CW HA Optical Probe solution was passed through a 0.2 µm nylon membrane into a sterile polypropylene tube and lyophilized. The product is supplied as a powder lyophilized from water. The recommended individual dose per mouse (body weight ~25 g) is 2 nmol. Each tube contains 20 nmol of IRDye 800CW HA Optical Probe.

### III. Properties IRDye 800CW HA (in 1X PBS)



**Note:** The absorbance spectra for IRDye 800CW HA bears two distinct peaks. The first absorbance peak (701 nm) is due to interaction among the labeled dye on the polymer chains and the second peak (775 nm) is the product peak.

- Absorption maximum: Peak 1: 701 nm  
Peak 2: 775 nm
- Emission maximum: 794 nm
- Appearance: Lyophilized solid

## IV. Storage and Handling

**Protect from light.** Upon receipt, immediately store at -20°C prior to reconstitution. When stored properly, this product is stable in the lyophilized state for 6 months. After reconstitution, store at 4°C. Reconstituted material must be used within 6 months.

## V. Directions for Use

### • Recommended administration:

For systemic localization of lymph nodes: Reconstitute lyophilized material in 1.0 mL of sterile 1x PBS to a final concentration of 0.02 nmol/μL. Allow the solution to sit at room temperature for 15 min to ensure the agent is completely dissolved. If desired, filter-sterilize the solution through a 0.2 μm filter system. Inject 2 nmol (100 μL) intravenously via the tail vein.

For lymph vessel or nodal tracking in a specific region: Reconstitute the lyophilized pellet in 100 μL to a final concentration of 0.2 nmol/μL. Inject 3 μL intradermally in region of interest.

### • In vivo Imaging:

It is important that unretained agent be allowed to clear from the animal's circulation prior to imaging. Suggested initial time frame for imaging is 24 hr post-injection. However, the timing required to achieve optimal signal-to-noise ratios will vary for each model system. IRDye<sup>®</sup> 800CW HA does persist for an extended period after IV administration (2 weeks). For best results, determine the optimal imaging time empirically. Cover the intradermal injection site when imaging, using the black drape provided with the Pearl<sup>®</sup> Imager or Pearl Impulse.

## VI. Precautions

The probe is processed through the liver and excreted through the kidneys and bladder. This may cause increased background when imaging in the abdominal region.

## VII. Applications

Browse [www.licor.com](http://www.licor.com) for posters, papers, and protocols related to the following applications:

- *In vitro* cell-based assays
- *In vivo* near-infrared optical animal imaging

## IX. References

Kuo, J.W. 2006. Practical Aspects of Hyaluronan Based Medical Products. CRC Press, Taylor & Francis Group; Boca Raton, FL.

Stern, R. (Ed) 2009. Hyaluronan in Cancer Biology. Academic Press, Elsevier, San Diego, CA.