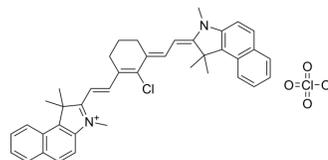


## IR 813 perchlorate

<b>Cat. No.:</b>	HY-D1535
<b>CAS No.:</b>	201024-57-9
<b>Molecular Formula:</b>	C <sub>40</sub> H <sub>40</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	683.66
<b>Target:</b>	Fluorescent Dye
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	IR 813 perchlorate is a near-infrared (NIR) fluorescent dye (Ex=815 nm, Em=840 nm) and can be used for visualizing regional lymph nodes in mice <sup>[1]</sup> .
<b>In Vitro</b>	IR 813 (17.3 μM, 2 h) induces a 31.4% hemolysis in red blood cells <sup>[1]</sup> . IR 813 (5.9 μM, 24 h) induces 50% cell death in MRC-5 cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	IR 813 perchlorate displays a maximum fluorescence intensity at 4 h postinjection together with a rapid extravasation, when being used for visualizing regional lymph nodes in mice <sup>[1]</sup> . Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs) <sup>[1]</sup> . 1. Animal: Ten-week-old female Balb/cOlaAnN mice are kept in a 12 h light/dark cycle to reduce tissue autofluorescence in the NIR region, and had access to food and water ad libitum. 2. Dose: A single dose 5.1 nmol of IR 813 dye (20 μL of 0.173 mg/mL, dissolved in a PEG-400/ethanol/water=3:2:5, v/v/v solution) is subcutaneous injected in the right anterior paw of mice. 3. Imaging: Using the Fluobeam700 NIR imaging system to perform in vivo optical imaging (739 nm excitation light (3.5 mW), 750 nm long-pass emission cutoff filter). Fluorescence intensity in the axillary lymph node (ALN) is recorded for 1 week (5 min, 1 h, 4 h, 24 h, 7 days). 4. Data analysis: Semiquantitative data is obtained from the fluorescence images using ImageJ 1.44 software. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Marion Hell, et al. Surface chemistry architecture of silica nanoparticles determine the efficiency of in vivo fluorescence lymph node mapping. ACS Nano. 2013 Oct 22;7(10):8645-57.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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