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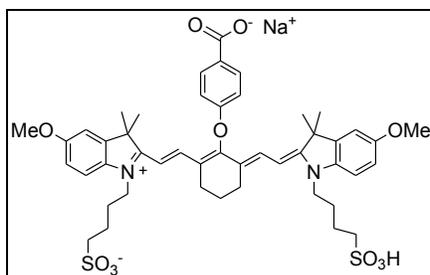
Catalog Number: P-1007

Product Name: 794-control probe, a near-infrared fluorescent probe used as a non-targeted control probe for PSVue[®]794

Product Description:

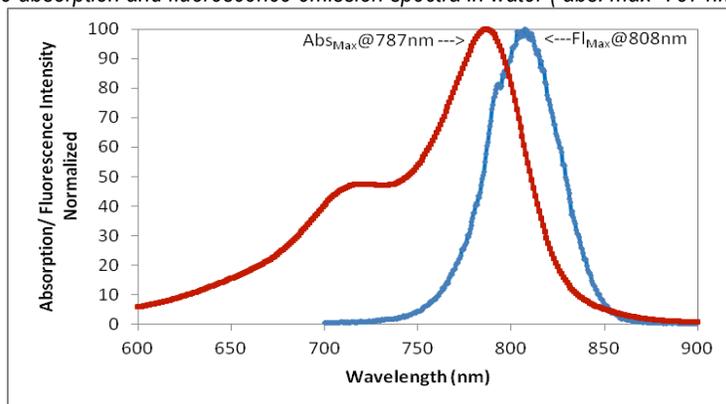
This probe contains the same fluorophore present in PSVue 794 but without the Zn-DPA targeting moiety attached. 1 mg of 794-control probe is provided as a solid. The structure of 794-control is shown in Figure 1. The compound exhibits absorbance and fluorescence excitation maximum at 787 nm and emission maximum at 808 nm (Figure 2).

Figure 1. Structure of 794-control probe



794-Control Probe Chemical Data: Molecular Formula $C_{47}H_{55}N_2O_{11}S_2Na$; Molecular Weight: 911.1 g/mol; Extinction coefficient: $1.751 \times 10^5 M^{-1} cm^{-1}$ (in water)

Figure 2. 794-control probe absorption and fluorescence emission spectra in water (abs. max=787 nm; fl.em max=808 nm).



Kit Component:

- One vial containing 1mg of 794-control probe (1.1 μ moles)

Storage/Stability:

- For long term storage, the kit maybe refrigerated at 4-8 $^{\circ}$ C. Bring to room temperature before use.

Preparation of Stock Solution:

- A 1mM stock solution in water can be prepared by dissolving 1mg of solid in 1.1mL of water

- The 794-control probe stock solution must be protected from bright direct light and examined for crystals prior to use. If crystals are noted in the dye stock, it can be warmed slightly to 40°C in a water bath and sonicated or vortexed to redissolve the crystals.
- **The stock solution should be stored at 4-8°C and used within 2 weeks of preparation**

In Vitro Imaging Conditions:

Near infrared fluorescence images can be captured using a Photometrics Cascade 512B CCD and a Cy7 filter set (Exciter HQ710/75x, Dichroic Q750LP, Emitter HQ810/90m).

In Vivo Imaging Conditions:

Kodak 4000MM imaging station (or similar) configured for epi-illumination. Illuminate animal with filtered light at either:

- 755 ± 20 nm and collect emission fluorescence at 830 ± 10 nm, or
- 750 ± 10 nm and collect emission fluorescence at 830 ± 20 nm, or
- 720 ± 35 nm and collect image intensity at 790 ± 35 nm by CCD camera during a 60s acquisition period.

References:

1. Leevy WM, Gammon ST, Jiang H, Johnson JR, Maxwell D J, Marquez M, Piwnica-Worms D, Smith BD. *Optical imaging of bacterial infection in living mice using a fluorescent near-infrared molecular probe*. *J. Am. Chem. Soc.* 2006, *128*, 16476-16477.
2. Smith BA, Xiao S, Wolter W, Wheeler J, Suckow MA, Smith, BD. *In vivo targeting of cell death using a synthetic fluorescent molecular probe*. *Apoptosis*, DOI 10.1007/s10495-011-0601-5, published on line: 16 april, 2011
3. Smith BA, Gammon ST, Xiao S, Wang W, Chapman S, McDermott R, Suckow MA, Johnson JR, Piwnica-Worms D, Gokel GW, Smith BD, Leevy WM. *In vivo imaging of acute cell death using a near-infrared fluorescent zinc-dipicolylamine probe*. *Molecular Pharmaceutics*. 2011, *8*(2), 583-590.

This product is offered for research purposes only and is not intended for human therapeutic or diagnostic use.