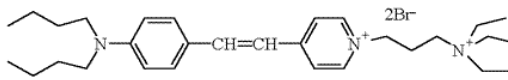


## Instruction Manual

<b>Catalog Number</b>	PK-CA707-70030
<b>Description</b>	The Nerve Terminal Green and Red Staining Kits have been designed to detect and study recycling of the synaptic vesicles in neuronal synapses and neuromuscular junctions. Although each kit uses a different amphiphilic styryl pyridinium dye to visualize the vesicles, preparation of the tissue, the required reagents and the staining procedures are identical for each. The dyes included in the kits fluoresce intensely inside plasma membranes but only minimally in aqueous environments. When neurons are actively releasing neurotransmitters, dye is incorporated into recycled vesicles at the presynaptic terminal. The dye-containing vesicles are not susceptible to subsequent wash steps that remove the excess dye from the outer leaflet of the plasma membrane. Thus, only active presynaptic terminals are labeled. ADVASEP-7 further reduces background by encapsulating the probes, preventing stain from accumulating interstitially.
<b>Quantity</b>	1 set (5 x 1 mg SynapseGreen C4 and 250 mg ADVASEP-7)
<b>SynapseGreen C4</b>	
<b>Description</b>	A widely used green fluorescent dye for following synaptic activities by staining synaptic vesicles at the synapse or neuromuscular junctions. <sup>1</sup> When used in combination with the red fluorescent dye SynapseRed PK-CA707-70021), synapses or neuromuscular junctions can be imaged independently in two colors. Recent research results from Tsien's <sup>2</sup> and Kay's <sup>3</sup> labs showed that brain slices can be stained with the styryl dye SynapseGreen when SR101 (Sulforhodamine 101, PK-CA707-80101) or ADVASEP-7 (PK-CA707-70029) is used to reduce the background staining. PromoKine offers several Nerve Terminal Staining Kits for staining brain slices.
<b>Molecular Structure</b>	
<b>Molecular Formula</b>	C <sub>30</sub> H <sub>49</sub> Br <sub>2</sub> N <sub>3</sub>
<b>Molecular Weight</b>	612 g/mol
<b>Appearance</b>	Red solid
<b>Purity</b>	≥95% (determined by HPLC)
<b>Absorption/Emission max.</b>	λ <sub>ex</sub> \ λ <sub>em</sub> : 510/625 nm (in MeOH); 480/598 nm (in membranes).
<b>Solubility</b>	Soluble in water
<b>References</b>	<ol style="list-style-type: none"> <li>1. J. Neurosci. 12, 363(1992)</li> <li>2. Science. 255, 200(1992)</li> <li>3. Neuron 24, 803(1999)</li> <li>4. Neuron 24, 809(1999)</li> </ol>
<b>Intended Use</b>	For in vitro research use only. Not for diagnostic or therapeutic procedures.
<b>Storage</b>	Store desiccated at 4°C.

<b>ADVASEP-7</b>	
<b>Description</b>	ADVASEP-7 is a sulfonated $\beta$ -cyclodextrin derivative that has been reported to reduce background fluorescence when using SynapseGreen C4 (also called FM1-43; PK-CA707-70020) to stain brain slices.
<b>Molecular Formula</b>	$C_{42}H_{70-n}O_{35}(C_4H_6SO_3Na)_n$ , avg. n = 6.5
<b>Molecular Weight</b>	~2163 g/mol
<b>Appearance</b>	White solid
<b>Purity</b>	>96% (determined by TLC)
<b>Solubility</b>	Soluble in water
<b>References</b>	Kay, A. R., A. Alfonso, et al. "Imaging synaptic activity in intact brain and slices with FM1-43 in <i>C. elegans</i> , Lamprey and Rat." <i>Neuron</i> 24: 809-817 (1999).
<b>Intended Use</b>	For in vitro research use only. Not for diagnostic or therapeutic procedures.
<b>Storage</b>	Store desiccated at 4°C.

**PromoCell GmbH**

Sickingenstr. 63/65  
69126 Heidelberg  
Germany

Email: [info@promokine.info](mailto:info@promokine.info)  
[www.promokine.info](http://www.promokine.info)

**North America**

Phone: 1 - 866 - 251 - 2860 (toll free)  
Fax: 1 - 866 - 827 - 9219 (toll free)

**Deutschland**

Telefon: 0800 - 776 66 23 (gebührenfrei)  
Fax: 0800 - 100 83 06 (gebührenfrei)

**France**

Téléphone: 0800 90 93 32 (ligne verte)  
Téléfax: 0800 90 27 36 (ligne verte)

**United Kingdom**

Phone: 0800 - 96 03 33 (toll free)  
Fax: 0800 - 169 85 54 (toll free)

**Other Countries**

Phone: +49 6221 - 649 34 0  
Fax: +49 6221 - 649 34 40