

## SynaptoRed™ C2 (Equivalent to FM®4-64)



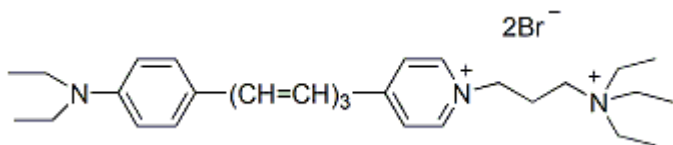
A widely used red fluorescent dye for following synaptic activity by staining synaptic vesicles at the synapse or neuromuscular junctions. When used in combination with the green fluorescent dye SynaptoGreen™ (70020), synapses or neuromuscular junctions can be imaged independently in two colors. SynaptoRed™ has also been used to study endocytosis in Dictyostelia.

### Product Description

A widely used red fluorescent dye for following synaptic activity by staining synaptic vesicles at the synapse or neuromuscular junctions. When used in combination with the green fluorescent dye SynaptoGreen™ (70020), synapses or neuromuscular junctions can be imaged independently in two colors. SynaptoRed™ has also been used to study endocytosis in Dictyostelia. Please also see AM4-64 (70025), which is similar to SynaptoRed™, but with a formaldehyde-fixable amine group.

SynaptoRed™ can also be used to stain bacteria (gram-positive or gram-negative) and yeast, although in yeast it rapidly internalizes to vacuolar membranes. See our [Cellular Stains Table](#) for more information on how our dyes stain various organisms.

- $\lambda_{Ex}/\lambda_{Em}$  (membranes) = ~510/750 nm\*
- Dark purple solid soluble in water
- $C_{30}H_{45}Br_2N_3$
- MW: 608
- [162112-35-8]



\* Excitation/emission settings of 515/640 nm have been used for detection of yeast vacuole staining with SynaptoRed C2 (FM®4-64) (Ref. 4).

### Product attributes

CAS number	162112-35-8
Probe cellular localization	Membrane/vesicular
For live or fixed cells	For live/intact cells
Assay type/options	Real-time imaging
Colors	Far-red
Excitation/Emission	510/750 nm (see product description)

## Nerve Terminal Dyes and Kits

Product	Catalog No.	Features
<b>SynaptoGreen™ Dyes</b> (Ex/Em ~480/660 nm in membranes)	70020... 70053	<a href="#">View full list of SynaptoGreen™ Dyes</a>
<b>SynaptoRed Dyes™</b> (Ex/Em ~510/750 nm in membranes)	70021... 70050	<a href="#">View full list of SynaptoRed™ Dyes</a>
<b>Background Reducers</b>		
<a href="#">ADVASEP-7</a>	<a href="#">70029</a>	Sulfonated cyclodextrin that aids in removal of free dye during washes
<a href="#">SCAS</a>	<a href="#">70037</a>	Quenches extracellular fluorescences with fewer wash steps than ADVASEP-7
<a href="#">Sulforhodamine 101</a>	<a href="#">80101</a>	Red fluorescent dye that quenches extracellular fluorescence of SynaptoGreen™ dyes
<b>Nerve Terminal Staining Kits</b>		
<a href="#">Nerve Terminal Staining Kit I</a>	<a href="#">70030</a>	Includes SynaptoGreen™ C4 and ADVASEP-7
<a href="#">Nerve Terminal Staining Kit II (A)</a>	<a href="#">70031</a>	Includes AM1-43 and ADVASEP-7
<a href="#">Nerve Terminal Staining Kit II (B)</a>	<a href="#">70031-1</a>	Includes AM1-43 and SCAS
<a href="#">Nerve Terminal Staining Kit III</a>	<a href="#">70032</a>	Includes SynaptoGreen™ C4 and Sulforhodamine 101
<a href="#">Nerve Terminal Staining Kit V</a>	<a href="#">70034</a>	Includes SynaptoRed™ C2 and ADVASEP-7

m is the number of carbons in the lipophilic tail and n is the number of double bonds linking the two aromatic rings in the dye.

\*\*The positively-charged end of SynaptoRed C2M is a trimethylammonium group. FM is a registered trademark of Thermo Fisher Scientific.

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Product link: <https://biotium-woo.supremeclients.com/product/synaptoRedtm-c2-also-known-as-fm4-64-a-trademark-of-molecular-probes-inc/>