## 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<sup>TM</sup> (70020), synapses or neuromuscular junctions can be imaged independently in two colors. SynaptoRed<sup>TM</sup> has also been used to study endocytosis in Dictyostelia.



## **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)

Call us: 800-304-5357 Email: btinfo@biotium.com

## **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<sup>TM</sup> (70020), synapses or neuromuscular junctions can be imaged independently in two colors. SynaptoRed<sup>TM</sup> has also been used to study endocytosis in Dictyostelia. Please also see AM4-64 (70025), which is similar to SynaptoRed<sup>TM</sup>, but with a formaldehyde-fixable amine group.

SynaptoRed<sup>TM</sup> 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 <u>Cellular Stains Table</u> for more information on how our dyes stain various organisms.

- $\hat{I}$ »Em (membranes) = ~510/750 nm\*
- Dark purple solid soluble in water
- C<sub>30</sub>H<sub>45</sub>Br<sub>2</sub>N<sub>3</sub>
- 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).

## **Nerve Terminal Dyes and Kits**

Catalog No.

**Product** 

SynaptoGreen™ Dyes (Ex/Em ~480/660 nm in membranes)	70020 70053	View full list of SynaptoGreen™ Dyes
SynaptoRed Dyes™ (Ex/Em ~510/750 nm in membranes)	70021 70050	View full list of SynaptoRed™ Dyes
Background Reducers		
ADVASEP-7	70029	Sulfonated cyclodextrin that aids in removal of free dye during washes
SCAS	70037	Quenches extracellular fluorescences with fewer wash steps than ADVASEP-7
Sulforhodamine 101	<u>80101</u>	Red fluorescent dye that quenches extracellular fluorescence of SynaptoGreen <sup>TM</sup> dyes
Nerve Terminal Staining	Kits	
Nerve Terminal Staining Kit I	70030	Includes SynaptoGreen™ C4 and ADVASEP-7
Nerve Terminal Staining Kit II (A)	<u>70031</u>	Includes AM1-43 and ADVASEP-7
Nerve Terminal Staining Kit II (B)	<u>70031-1</u>	Includes AM1-43 and SCAS
Nerve Terminal Staining Kit III	70032	Includes SynaptoGreen <sup>TM</sup> C4 and Sulforhodamine 101
Nerve Terminal Staining Kit V	70034	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.

**Features**