

# Product Information

## $\alpha$ -Bungarotoxin, CF™ Dye Conjugate

### Catalog Number:

Cat. No.	Conjugate	Abs (nm)	Em (nm)
00002	CF™405S	404	431
00005	CF™488A	490	515
00026	CF™543	541	560
00018	CF™555	555	565
00006	CF™568	562	583
00007	CF™594	593	614
00009	CF™633	630	650
00004	CF™640R	642	662
00003	CF™680R	680	701

**Unit Size:** 0.5 mg

### Storage and Handling

Store at -20 °C and protect from light, especially when in solution. Product is stable for at least 1 year from date of receipt when stored as recommended. Stock solutions can be prepared in PBS at 0.5 mg/mL and stored at 4°C for at least 6 months, or in single use aliquots at -20°C for longer term storage. Avoid multiple freeze-thaw cycles.

### Spectral Properties

See table above.

### Product Description

$\alpha$ -Bungarotoxin is a polypeptide snake toxin that binds to the nicotinic acetylcholine receptor found at the neuromuscular junction with high affinity. Fluorescent conjugates of  $\alpha$ -bungarotoxin can be used for fluorescence imaging of nicotinic acetylcholine receptors at neuromuscular junctions. CF™ dyes are superior dyes with exceptional brightness and remarkable photostability.

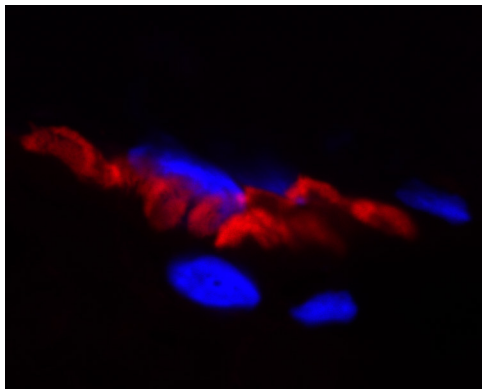


Figure 1. Fresh frozen section of rat skeletal muscle stained with CF™594  $\alpha$ -bungarotoxin (red). Nuclei are counterstained blue with DAPI.

### Staining Protocol

The following is an example protocol for staining 10  $\mu$ m-thick fresh-frozen cryosections of rat skeletal muscle with fluorescent  $\alpha$ -bungarotoxin conjugates, and may require optimization for other applications. For combined immunofluorescence and  $\alpha$ -bungarotoxin staining,  $\alpha$ -bungarotoxin conjugates can be incubated together with fluorescently labeled secondary antibodies.

1. Fix fresh-frozen sections in 4% paraformaldehyde in PBS for 15 minutes at room temperature. Alternatively, sections can be fixed in ice-cold methanol for 5 minutes at -20 °C. Rinse 3X with PBS.
2. Permeabilize sections with PBS/0.1% Triton X-100 for 10 minutes at room temperature. Permeabilization is not required for methanol-fixed sections.
3. Prepare staining solution of 1  $\mu$ g/mL  $\alpha$ -bungarotoxin in PBS. The conjugate can also be diluted in an immunofluorescence blocking buffer.
4. Overlay sections with enough staining solution to completely cover the tissue. A Parafilm® coverslip can be placed on top of the staining solution to evenly spread the solution over the section.
5. Incubate in a dark, humid chamber for at least 15 minutes at room temperature.
6. Rinse several times in PBS.
7. Mount in fluorescence antifade mounting medium and coverslip.

### Related Products

Catalog #	Product Name	Unit Size
40061-T	RedDot™2 Far Red Nuclear Counterstain, 200X in DMSO, Trial Size	25 $\mu$ L (15-20 tests)
23001	EverBrite™ Mounting Medium	10 mL
23002	EverBrite™ Mounting Medium with DAPI	10 mL
23003	EverBrite™ Hardset Mounting Medium	10 mL
23004	EverBrite™ Hardset Mounting Medium with DAPI	10 mL
23005	CoverGrip™ Coverslip Sealant	15 mL
22005	Mini Super <sup>HT</sup> Pap Pen 2.5 mm tip, ~400 uses	1 pen
22006	Super <sup>HT</sup> Pap Pen 4 mm tip, ~800 uses	1 pen
22015	Fixation Buffer	100 mL
22016	Permeabilization Buffer	100 mL
22017	Permeabilization and Blocking Buffer	100 mL
22010	10% Fish Gelatin Blocking Buffer	100 mL
22011	Fish Gelatin Powder	2 x 50 g
22013	Bovine Serum Albumin, Fraction V	50 g
22014	30% Bovine Serum Albumin Solution	100 mL
22002	Tween®-20	50 mL

Please visit [www.biotium.com](http://www.biotium.com) to view our full selection of products featuring bright and photostable fluorescent CF™ dyes, including secondary antibodies, phalloidins and other conjugates, Mix-n-Stain™ antibody labeling kits, and many more innovative fluorescent dyes and assays for life science research.

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