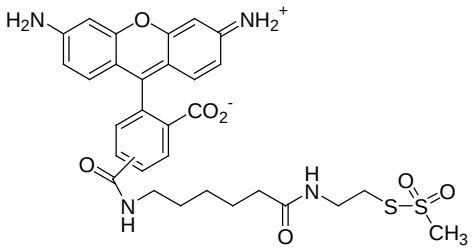
46117 Landing Parkway, Fremont, CA 94538 U.S.A.
Tel: 1-510-265-1027; Fax: 1-510-265-1352
www.biotium.com

PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: **MTS-CR110-X** (MTS-5-(and-6)-carboxyrhodamine 110-X, mixed isomers)

CATALOG # **91036**

MOLECULAR INFORMATION: $C_{30}H_{32}N_4O_7S_2$
Mwt: 624



PROPERTIES:

Color & Form	Orange red solid
Purity	>90% by TLC
Solubility	Soluble in DMSO, DMF
Absorption/Emission	502/524nm (MeOH)
Extinction Coefficient	77,000

STORAGE AND HANDLING: Store desiccated at -20 °C and protect from light.

APPLICATION: MTS-CR110-X is a green fluorescent thiol-reactive dye. It is similar to MTS-CR110 (#91035) except that this product has a X spacer molecule between the dye and the MTS reactive group. CR110 (5-(and-6)-carboxyrhodamine 110) has absorption and emission spectra (502/524 nm) similar to those of fluorescein (495/519 nm) but its photostability is far better than that of the latter. Thus, MTS-CR110 is a superior green fluorescent dye for labeling thiols. The linker molecule may enhance fluorescence when the dye is attached to proteins. See figure below for photostability comparison with other dyes.

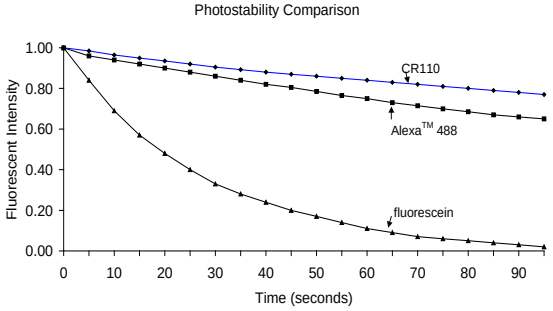


Figure 7.6 Photostability comparison of carboxyrhdamine 110-, fluorescein- and Alexa™ 488. Carboxyrhodamine 110 is more photostable than fluorescein and Alexa™ 488.

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TOXICITY:	Not established. Not listed by NTP, IARC or OSHA.
FIRST AID:	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.