

MATERIAL DATA SHEET**MAP1LC3A-Rhodamine110, human recombinant****Cat. # UL-455**

Microtubule-associated proteins 1A/1B light chain 3A (also known as MAP1LC3A) is an Ubiquitin-like modifier of the ATG8 family and is involved in the formation of the autophagosomes. This protein interacts directly with Sequestosome-1 and is recruited to inclusion bodies containing polyubiquitinated protein aggregates where it plays a role in inclusion body degradation by autophagy. MAP1LC3A-Rhodamine110 (Rh110) is a fluorogenic substrate for the autophagy hydrolase ATG4B. This substrate is useful for studying ATG4B when detection sensitivity or continuous monitoring of activity is essential.

Product Information

Quantity:	50 µg
Stock:	X mg/ml (X µM) in 50 mM MES, pH 6.0, 100 mM NaCl, 20% glycerol
MW:	14 kDa
Purity:	> 90% by SDS-PAGE

Use & Storage

Use:	MAP1LC3A-Rhodamine gives a strong signal in the range of 0.1-1 µM, depending on exact experimental conditions. Optimal fluorescence at pH 8.0 is monitored using Ex ₄₈₅ nm and Em ₅₃₅ nm wavelengths respectively.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Borodovsky A., <i>et al.</i> (2002) <i>Chem. Biol.</i> 9 :1149-1159 Hemelaar J., <i>et al.</i> (2003) <i>J Biol. Chem.</i> 278 :51841-51850 Kessler B.M. (2006) <i>Exp. Rev. Proteomics.</i> 3 :213-221 Kumanomidou T., <i>et al.</i> (2006) <i>J. Mol. Biol.</i> 355 :612-618 Love K.R., <i>et al.</i> (2007) <i>Nat. Chem. Biol.</i> 3 :697-705 Wilkinson K.D. <i>et al.</i> (2005) <i>Meth. Enz.</i> 399 :37-51
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