Synaptic Systems

Rudolf-Wissell-Str. 28
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

mCLING-ATTO 647N-labeled

Cat.No. 710 006AT1; , 5 nmol mCling

Data Sheet

Reconstitution/ Storage	5nmol mCLING labeled with ATTO® 647N in 100 µl PBS (lyophilized). For reconstitution add 100 µl H_2O, then aliquot and store at -80°C until use. Reconstitute immediately upon receipt! Avoid bright light when working with the probe to minimize photo bleeching of the fluorescent dye.
Applications	**ICC**: 1 : 75 up to 1 : 250 (0.2 - 0.7 nmol/ml) **IHC**: 1 : 25 up to 1 : 50 (1 - 2 nmol/ml)
Label	ATTO 647N
Remarks	Due to the positive charge of mCLING, negatively charged coatings of cover-slips should be avoided. We recommend a positively charged coating like poly-L-lysine (PLL). mCLING is a fixable dye but paraformaldehyde alone is not able to fix this molecule sufficiently. Therefore, a mixture of 4 %paraformaldehyde (PFA) and 0.2 % glutaraldehyde is strongly advised. For detailed protocols see Revelo NH & Rizzoli SO, 2016.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The **m**embrane-binding fluorophore-**c**ysteine-**l**ys**in**e-palmtoyl **g**roup (**mCLING**) is a new probe that selectively binds to the plasma membrane. It is taken up during endocytosis and, in contrast to conventional membrane dyes, remains attached to membranes after fixation and permeabilization and can therefore be combined with immunostaining and super-resolution microscopy.
mCLING was used so far in mammalian-cultured cells, yeast, bacteria, primary cultured neurons, Drosophila melanogaster larval neuromuscular junctions, and mammalian tissue.

Selected References SYSY Antibodies

A new probe for super-resolution imaging of membranes elucidates trafficking pathways.
Revelo NH, Kamin D, Truckenbrodt S, Wong AB, Reuter-Jessen K, Reisinger E, Moser T, Rizzoli SO
The Journal of cell biology (2014) 205(4): 591-606. **ICC, IHC**

The Membrane Marker mCLING Reveals the Molecular Composition of Trafficking Organelles.
Revelo NH, Rizzoli SO
Current protocols in neuroscience (2016) 74: 2.25.1-21. **ICC, IHC**

Reversible supramolecular assembly of velvet worm adhesive fibers via electrostatic interactions of charged phosphoproteins.
Baer A, Hänsch S, Mayer G, Harrington MJ, Schmidt S
Biomacromolecules (2018) : . **ICC**

Ma2/d promotes myonuclear positioning and association with the sarcoplasmic reticulum.
Reuveny A, Shnayder M, Lorber D, Wang S, Volk T
Development (Cambridge, England) (2018) 145(17): . **IHC; tested species: drosophila**

Whole-head recording of chemosensory activity in the marine annelid Platynereis dumerilii.
Chartier TF, Deschamps J, Dürichen W, Jékely G, Arendt D
Open biology (2018) 8(10): . **IHC**

Nanoscale architecture of the Schizosaccharomyces pombe contractile ring.
McDonald NA, Lind AL, Smith SE, Li R, Gould KL
eLife (2017) 6: . **ICC**

An apicosome initiates self-organizing morphogenesis of human pluripotent stem cells.
Taniguchi K, Shao Y, Townshend RF, Cortez CL, Harris CE, Meshinchi S, Kalantry S, Fu J, O'Shea KS, Gumucio DL
The Journal of cell biology (2017) 216(12): 3981-3990. **ICC; tested species: human**

Mechanoresponsive lipid-protein nanoglobules facilitate reversible fibre formation in velvet worm slime.
Baer A, Schmidt S, Haensch S, Eder M, Mayer G, Harrington MJ
Nature communications (2017) 8(1): 974. **ICC**

SWAP70 Organizes the Actin Cytoskeleton and Is Essential for Phagocytosis.
Baranov MV, Revelo NH, Dingjan I, Maraspini R, Ter Beest M, Honigmann A, van den Bogaart G
Cell reports (2016) 17(6): 1518-1531. **ICC**

Disruption of adaptor protein 2µ (AP-2µ) in cochlear hair cells impairs vesicle reloading of synaptic release sites and hearing.
Jung S, Maritzen T, Wichmann C, Jing Z, Neef A, Revelo NH, Al-Moyed H, Meese S, Wojcik SM, Panou I, Bulut H, et al.
The EMBO journal (2015) 34(21): 2686-702. **IHC; tested species: mouse**

Selected General References

Nanoscale architecture of the Schizosaccharomyces pombe contractile ring.
McDonald NA, Lind AL, Smith SE, Li R, Gould KL
eLife (2017) 6: .

SWAP70 Organizes the Actin Cytoskeleton and Is Essential for Phagocytosis.
Baranov MV, Revelo NH, Dingjan I, Maraspini R, Ter Beest M, Honigmann A, van den Bogaart G
Cell reports (2016) 17(6): 1518-1531.

The Membrane Marker mCLING Reveals the Molecular Composition of Trafficking Organelles.
Revelo NH, Rizzoli SO
Current protocols in neuroscience (2016) 74: 2.25.1-21.

A new probe for super-resolution imaging of membranes elucidates trafficking pathways.
Revelo NH, Kamin D, Truckenbrodt S, Wong AB, Reuter-Jessen K, Reisinger E, Moser T, Rizzoli SO
The Journal of cell biology (2014) 205(4): 591-606.