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Research Use Only

JAPAN MADE QUALITY

Reversible cytoplasm blue fluorescent dye

CytoSeeing

<Reversible Cytoplasm Blue >

For more information : http://www.funakoshi.co.jp/exports_contents/81015

CytoSeeing is a new fluorescent dye, which stains cytoplasm promptly by just adding to culture medium. After observation, fluorescent dye can be easily removed by replacing fresh medium without CytoSeeing.

This product is commercialized under a license from Hokkaido University Faculty of Science.

Features and Benefits

- Easy protocol
  - Just add CytoSeeing to culture medium.
- No staining on nucleus
- Compatible with green and red fluorescent dyes
  - can be detected by fluorescence filter for DAPI.
- Little effect to cell function
- Removable
  - Replace with fresh medium without containing CytoSeeing. Cells can be used for further assays.
- Compatible with both adhesive and suspension cells.

Product Information

- Molecular Formula : $C_{17}H_{12}N_3$
- Molecular Weight : 258.1
- Purity : >97%
- Ex / Em (*1) : 345 nm / 456 nm
- Solubility : DMSO (*2)

*1 : Compatible with DAPI filter.

*2 : 10 mM stock solution is recommended.

Reagent	Staining Cytoplasm	Check nuclear morphology	Time of introduction	Wash-out
CytoSeeing	Yes	Yes	3 - 9 minutes	Yes
Company A	Yes	No	15 - 60 minutes	No
Company B	Yes	No	15 - 60 minutes	No

Background about CytoSeeing

It is well known that morphology change of nucleus and cytoplasm is related to differentiation, function and signal response of cells. Conventional cytoplasm staining dyes are used for cell tracking. Therefore, once dyes are incorporated into cells, the dyes remain in cytoplasm even after medium change.
If dyes remained in the cells, it is difficult to observe the cell with other probes after live cell imaging.
CytoSeeing overcomes this problem with conventional dyes. CytoSeeing can be washed out just by replacing medium with fresh medium not containing CytoSeeing.

Data

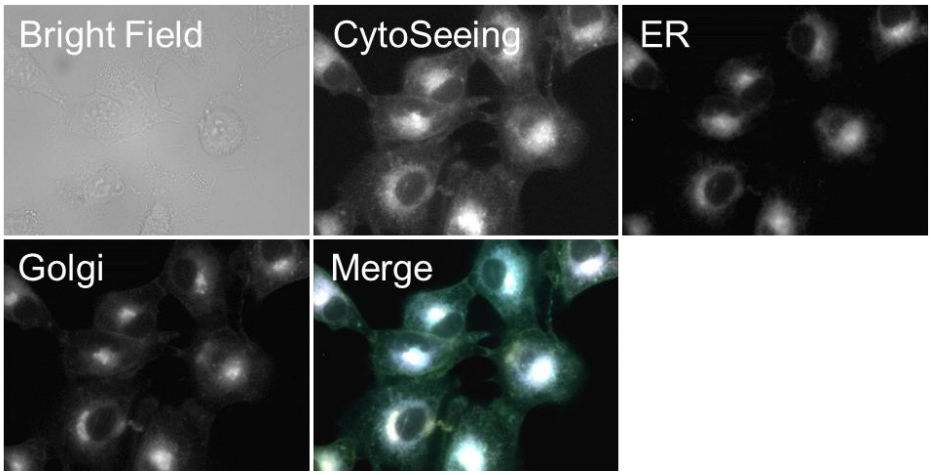

Fig. 1 Multiple staining of Endoplasmic Reticulum (ER) or Golgi Body
A549 cells are stained with ER probe (Magenta) or Golgi probe (Yellow) after staining by CytoSeeing (50 μM). CytoSeeing (Cyan) stains entire cytoplasm and fluorescence intensity is increased under hydrophobic environment such as in ER and Golgi Body.

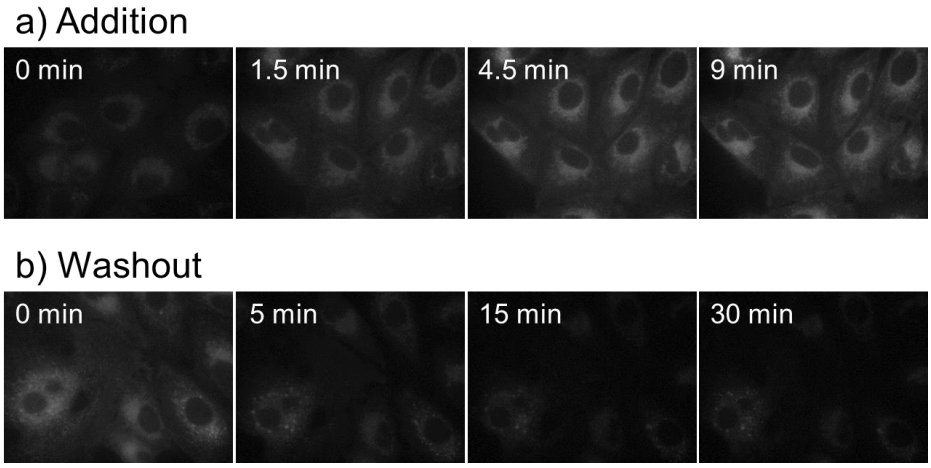

Fig. 2 Incorporation and distribution of CytoSeeing in A549 cells by time course
a) CytoSeeing (10 μM) was added and incubated. CytoSeeing was completely incorporated into cell in 9 minutes.
b) CytoSeeing incorporated cells were washed and incubated in fresh medium (without CytoSeeing). CytoSeeing signal was mostly faded away in 30 minutes.

Reference

Effective Cellular Morphology Analysis for Differentiation Processes by a Fluorescent 1,3a,6a-Triazapentalene Derivative Probe in Live Cells
Kamada, *et al.,* PLOS ONE, 11：e0160625(2016).

Product Information

[Manufacturer : FNA]

Product Name	Size	Catalog #	Storage
CytoSeeing <Reversible Cytoplasm Blue>	1 mg	FDV-0017	-20℃

NOTE
※ All products here are research use only, not for diagnostic use.
※ Specs might be changed for improvement without notice.
※ Company name and product name are trademark or registered mark.
※ Please contact your local distributors for orders, quote request and inquiry.

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