

Jun 25, 2024

Magic Red Cathepsin B activity assay

DOI

dx.doi.org/10.17504/protocols.io.ewov192b2lr2/v1

Razaul Karim¹

¹University of Minnesota, Team Lee

Team Lee



Jane Balster

ASAP - Team Lee

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.ewov192b2lr2/v1>

Protocol Citation: Razaul Karim 2024. Magic Red Cathepsin B activity assay. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.ewov192b2lr2/v1>

License: This is an open access protocol distributed under the terms of the **[Creative Commons Attribution License](#)**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited



Protocol status: Working

We use this protocol and it's working

Created: June 07, 2024

Last Modified: June 25, 2024

Protocol Integer ID: 102393

Keywords: Cathepsin B , scanning microscope, signal intensity , assay, protocol detail, protocol

Funders Acknowledgements:

ASAP

Grant ID: 000592

Abstract

This protocol details the magic red Cathepsin B activity assay.

Materials

Assay Kits:

- Magic Red Fluorescent Cathepsin B assay kit (Immunochemistry Technologies, CA).

Coverslips:



-  Corning® BioCoat™ Poly-D-Lysine #1 German Glass Coverslip **Merck Catalog #354086**

Troubleshooting



Cell Culture/Treatments

15m

- 1 0.5×10⁴/ml of cells plated on coverslips.
- 2 PFF-488 treatment.
- 3 PBS/trypsin (0.01%) wash.
- 4 1x Magic Red solution for last  00:15:00 at  37 °C in cell culture incubator.



15m



Imaging

- 5 Live-Cell imaging.
- 6 Leica Stellaris 8 confocal laser scanning microscope, assembled with live cell chamber with CO₂ gas, temperature and humidity controlled.
- 7 Image analysis:
Image J. quantification of the % area of the cell covered by Magic Red signal, as well as total signal intensity per cell.