

Materials List for:

## Fluorescence detection methods for microfluidic droplet platforms

Xavier Casadevall i Solvas<sup>1</sup>, Xize Niu<sup>1</sup>, Katherine Leeper<sup>1</sup>, Soongwon Cho<sup>1</sup>, Soo-Ik Chang<sup>2</sup>, Joshua B. Edel<sup>1</sup>, Andrew J. deMello<sup>3</sup>

<sup>1</sup>Department of Chemistry, Imperial College London

<sup>2</sup>Department of Biochemistry, Protein Chip Research Center, Chungbuk National University

<sup>3</sup>Department of Chemistry and Applied Biosciences, Institute for Chemical and Bioengineering, ETH Zurich

Correspondence to: Xavier Casadevall i Solvas at [x.casadevall-i-solvas@imperial.ac.uk](mailto:x.casadevall-i-solvas@imperial.ac.uk), Xize Niu at [x.niu@imperial.ac.uk](mailto:x.niu@imperial.ac.uk)

URL: <https://www.jove.com/video/3437>

DOI: [doi:10.3791/3437](https://doi.org/10.3791/3437)

### Materials

| Name                                | Type      | Company                             | Catalog Number | Comments |
|-------------------------------------|-----------|-------------------------------------|----------------|----------|
| Fluorescein 5-isothiocyanate (FITC) | Reagent   | Sigma-Aldrich                       | F3651          |          |
| Streptavidin-Alexa Fluor 488        | Reagent   | Molecular Probes, Life Technologies | S11223         |          |
| Perfluorodecalin                    | Reagent   | Sigma-Aldrich                       | P9900          |          |
| 1H,1H,2H,2H-perfluorooctanol        | Reagent   | Sigma-Aldrich                       | 370533         |          |
| Sylgard 184 silicone elastomer kit  | Reagent   | Premier Farnell UK LTD              | 1673921        |          |
| auramine-O                          | Reagent   | Sigma-Aldrich                       | 861030         |          |
| 485 nm pulsed diode laser           | Equipment | PicoQuant                           | LDH-P-C-485    |          |
| TCSPC Card                          | Equipment | PicoQuant                           | TimeHarp 100   |          |
| dichroic mirror                     | Equipment | Chroma Technology Corp.             | z488rdc,       |          |
| Microscope objective                | Equipment | Olympus Corporation                 | UPLSAPO 60XW   |          |
| Avalanche photodiode                | Equipment | PerkinElmer, Inc.                   | AQR-141        |          |
| DMEM                                | Reagent   | Invitrogen                          | ABCD1234       |          |
| SYTO9                               | Reagent   | Invitrogen                          | S34854         |          |
| Propidium Iodide                    | Reagent   | Invitrogen                          | P3566          |          |
| Escherichia coli top 10 strain      | Cells     | Invitrogen                          | C4040-10       |          |