

ab284566 – mCherry Quantification Kit

For the quantitative measurement of mCherry expression in cells or tissue samples.
For research use only - not intended for diagnostic use.

For overview, typical data and additional information please visit:

<http://www.abcam.com/ab284566>

Storage and Stability

On receipt entire assay kit should be stored at -20°C, protected from light.

Materials Supplied

| Item | Quantity | Storage Condition |
|----------------------|----------|-------------------|
| mCherry Assay Buffer | 25 mL | -20°C |
| mCherry Standard | 1 vial | -20°C |

Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully utilize this assay:

- 96-well white plate with flat bottom.
- Multi-well spectrophotometer (fluorescence reader)

Reagent Preparation

- Before using the kit, spin the tubes prior to opening.

mCherry Assay Buffer: Warm to room temperature before use. Store at 4°C or -20°C.

mCherry Standard: Reconstitute with 100 µL dH₂O to generate 1 µg/µL. Aliquot and store at -20°C. Keep on ice while in use.

Assay Protocol

Sample Preparation:

1. Liquid samples can be assayed directly. For cells or tissues, 10⁶ cultured cells or 50 mg tissues can be homogenized with 0.25 ml of mCherry Assay Buffer, followed by incubation on ice for 10 min. to ensure all the cells are lysed completely.
2. Centrifuge samples at 10 x g, for 5 min. at 4 °C.
3. Transfer the clear supernatants to new tubes. Store at -20°C and protect from light.
4. Add 2-100 µL samples into a 96-well white plate.
5. Adjust the volume to 100 µL with mCherry Assay Buffer. Mix well.

Δ Note: For unknown samples, we suggest testing several doses to ensure the readings are within the Standard Curve range.

mCherry Standard Curve:

1. Dilute 10 µL of the 1 µg/µL mCherry Standard into 990 µL Assay Buffer to generate a 10 ng/µL mCherry working solution.
2. Add 0, 2, 4, 6, 8 and 10 µL of mCherry working solution into a series of wells in a 96-well white plate to generate 0, 20, 40, 60, 80, 100 ng/well of mCherry Standard.
3. Adjust the volume to 100 µL/well with mCherry Assay Buffer.

Δ Note: If a more sensitive assay is desired, the mCherry working solution can be further diluted 10-fold to generate a 1 ng/µL mCherry working solution. Add 0, 2, 4, 6, 8 and 10 µL of mCherry working solution into a series of wells in a 96-well white plate to generate 0, 2, 4, 6, 8, 10 ng/well of mCherry Standard. Adjust the volume to 100 µL/well with mCherry Assay Buffer. Mix well.

Measurement

Measure fluorescence within 10 minutes at Ex/Em= 587/610 nm at room temperature.

Calculation

- Subtract 0 mCherry Standard fluorescence reading from all readings.
- Plot the mCherry Standard Curve.
- Apply the fluorescence reading of samples to the mCherry Standard Curve to get the mCherry amount (A) in the sample wells.

$$\text{Sample mCherry concentration} = \frac{A}{V} \times D \text{ (ng/}\mu\text{L)}$$

Where: **A** = mCherry amount from the Standard Curve (ng)
V = sample volume added into the reaction well (µL)
D = Dilution Factor

Technical Support

Copyright © 2021 Abcam. All Rights Reserved. The Abcam logo is a registered trademark. All information / detail is correct at time of going to print.
For all technical or commercial enquiries please go to:

www.abcam.com/contactus

www.abcam.cn/contactus (China)

www.abcam.co.jp/contactus (Japan)