

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Detection	Clonality	Isotype
Flow Cytometry	N/A	Monoclonal	Rabbit IgGk

**Format:** PE

**Cross Reactivity:** Predicted to work with mouse, rat and other homologues.

**Formulation:** 1X PBS, 0.09% NaN<sub>3</sub>, 0.2% BSA

**Preparation:** Protein A+G

**Reactivity:** Human, Mouse

**Recommended Usage:** For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells or 5 µL per 100 µL of staining volume. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

**Immunogen:** A synthetic phospho-peptide corresponding to residues surrounding Ser2448 of human phospho mTOR

**Description:** mTOR, mammalian target of rapamycin, is a Serine/Threonine protein kinase (1-2) that functions as an amino acid and ATP sensor to balance cell growth and nutrient availability (3-4). When sufficient nutrients are available, mTOR transmits a positive signal to p70 S6 kinase and participates in the inactivation of 4E-BP1 (5). mTOR plays a key role in homeostasis and cell growth, and phospho mTOR may be abnormally regulated in tumors. mTOR is a potential target for anti-cancer therapy (6).

**References:** 1. Sabers, C.J. et al. (1995) J. Biol. Chem. 270: 815-822.

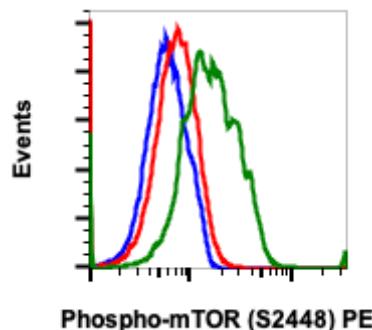
2. Brown, E.J. et al. (1994) Nature. 369: 756-758.

3. Gingras, A.C. et al. (2001) Gene. Dev. 15: 807-826.

4. Dennis, P.B. et al. (2001) Science. 294: 1102-1105.

5. Fang, Y. et al. (2001) Science. 294: 1942-1945.

6. Huang, S. and Houghton, P.J. (2003) Curr. Op. Pharmacol. 3: 371-377.



Flow cytometric analysis of A431 cells treated with phosphatase and unstained as negative control (blue) or treated with phosphatase (red) or EGF (green) and stained using Phospho-mTOR (Ser2448) PE conjugated antibody mTORS2448-E11. Cat. #2377.