

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

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

**Format:** SureLight 488

**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

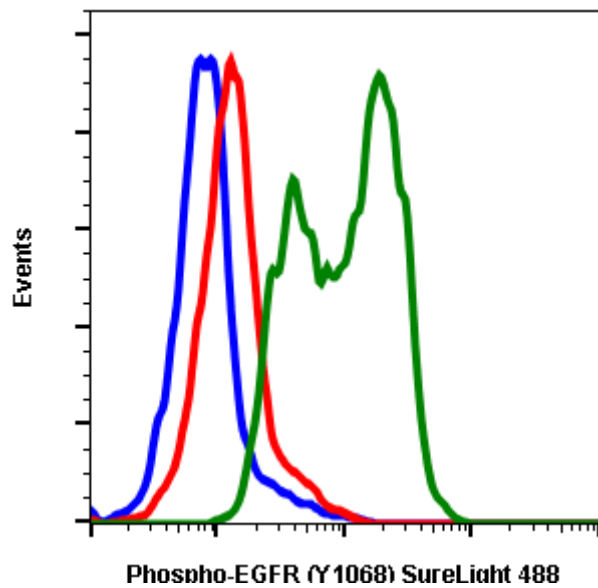
**Reactivity:** Human,Mouse,Rat

**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.

**Immunogen:** A synthetic phospho-peptide corresponding to residues surrounding Tyr1068 of human phospho EGFR.

**Description:** The epidermal growth factor receptor (EGFR; ErbB-1; HER1 in humans) is a transmembrane protein that is a receptor for members of the epidermal growth factor family (EGF family) of extracellular protein ligands (1). EGFR (rbB-1) is closely related to other members of the ErbB family of receptors: HER2/neu(ErbB-2), HER3 (ErbB-3) and HER4 (ErbB-4). In many cancer types, mutations affecting EGFR expression or activity could result in cancer (2). Overexpression of EGFR is associated with the development of a wide variety of tumors. Interruption of EGFR signaling, either by blocking EGFR binding sites on the extracellular domain of the receptor or by inhibiting intracellular tyrosine kinase activity, can prevent the growth of EGFR-expressing tumors and improve the patient's condition. EGFR is activated by the binding of its ligands including EGF and dimerization stimulates its intrinsic intracellular protein-tyrosine kinase activity. Activation of EGFR leads to autophosphorylation of tyrosine (Tyr) residues; Tyr992, Tyr1045, Y1068, Tyr1148, and Tyr1173 in the C-terminal domain.

**References:** (1) Herbst RS (2004). "Review of epidermal growth factor receptor biology". International Journal of Radiation Oncology, Biology, Physics. 59 (2 Suppl): 21-6. (2) Zhang H, Berezov A, Wang Q, Zhang G, Drebin J, Murali R, Greene MI (August 2007). "ErbB receptors: from oncogenes to targeted cancer treatment". The Journal of Clinical Investigation. 117 (8): 2051-8.



Flow cytometric analysis of K562 cells unstained cells negative control (blue) or stained and untreated (red) or treated with EGF and pervanadate (green) using Phospho-EGFR (Tyr1068)-SureLight® 488 antibody EGFRY1068-E5. Cat. #2085.