



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#9789

Phospho-EGF Receptor Pathway Antibody Sampler Kit

1 Kit (8 x 20 microliters)

For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-EGF Receptor (Tyr1068) (D7A5) XP [®] Rabbit mAb	3777	20 µl	175 kDa	Rabbit IgG
Phospho-Akt (Ser473) (D9E) XP [®] Rabbit mAb	4060	20 µl	60 kDa	Rabbit IgG
Phospho-Gab1 (Tyr627) (C32H2) Rabbit mAb	3233	20 µl	110 kDa	Rabbit IgG
Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP [®] Rabbit mAb	4370	20 µl	44, 42 kDa	Rabbit IgG
Phospho-Shc (Tyr239/240) Antibody	2434	20 µl	50, 55, 70 kDa	Rabbit
Phospho-Stat5 (Tyr694) (D47E7) XP [®] Rabbit mAb	4322	20 µl	90 kDa	Rabbit IgG
Phospho-c-Cbl (Tyr700) (D16D7) Rabbit mAb	8869	20 µl	120 kDa	Rabbit IgG
Phospho-PLCγ1 (Tyr783) (D6M9S) Rabbit mAb	14008	20 µl	155 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Phospho-EGF Receptor Pathway Sampler Kit provides an economical means to evaluate the activation status of multiple members of the EGF receptor pathway, including phosphorylated EGF receptor, Stat5, c-Cbl, Shc, Gab1, PLCγ1, Akt and p44/42 MAPK. The kit includes enough primary and secondary antibodies to perform two western blot experiments.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Background

The epidermal growth factor (EGF) receptor is a transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Ligand binding results in receptor dimerization, autophosphorylation, activation of downstream signaling, internalization, and lysosomal degradation (1,2). Phosphorylation of EGF receptor (EGFR) at Tyr845 in the kinase domain is implicated in stabilizing the activation loop, maintaining the active state enzyme, and providing a binding surface for substrate proteins (3,4). c-Src is involved in phosphorylation of EGFR at Tyr845 (5). The SH2 domain of PLCγ binds at phospho-Tyr992, resulting in activation of PLCγ-mediated downstream signaling (6). Phosphorylation of EGFR at Tyr1045 creates a major docking site for the adaptor protein c-Cbl, leading to receptor ubiquitination and degradation following EGFR activation (7,8). The GRB2 adaptor protein binds activated EGFR at phospho-Tyr1068 (9). A pair of phosphorylated EGFR residues (Tyr1148 and Tyr1173) provide a docking site for the Shc scaffold protein, with both sites involved in MAP kinase signaling activation (2). Phosphorylation of EGFR at specific serine and threonine residues attenuates EGFR kinase activity. EGFR carboxy-terminal residues Ser1046 and Ser1047 are phosphorylated by CaM kinase II; mutation of either of these serines results in upregulated EGFR tyrosine autophosphorylation (10).

Background References

- Hackel, P.O. et al. (1999) *Curr Opin Cell Biol* 11, 184-9.
- Zwick, E. et al. (1999) *Trends Pharmacol Sci* 20, 408-12.
- Cooper, J.A. and Howell, B. (1993) *Cell* 73, 1051-4.
- Hubbard, S.R. et al. (1994) *Nature* 372, 746-54.
- Biscardi, J.S. et al. (1999) *J Biol Chem* 274, 8335-43.
- Emler, D.R. et al. (1997) *J Biol Chem* 272, 4079-86.
- Levkowitz, G. et al. (1999) *Mol Cell* 4, 1029-40.
- Ettenberg, S.A. et al. (1999) *Oncogene* 18, 1855-66.
- Rojas, M. et al. (1996) *J Biol Chem* 271, 27456-61.
- Feinmesser, R.L. et al. (1999) *J Biol Chem* 274, 16168-73.

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

U.S. Patent No. 7,429,487, foreign equivalents, and child patents deriving therefrom.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.