EGFR Phosphorylation Site-Specific Antibody Sampler (Containing EGFR [pY845], [pY1068], [pY1086], [pY1148], [pY1173] Rabbit Polyclonals & EGFR [R19/48] and [H9B4] Monoclonals, Unconjugated)

PRODUCT ANALYSIS SHEET

Catalog Number: 44799G
Lot Number: See product label

<table>
<thead>
<tr>
<th>Part #</th>
<th>Antibody Description</th>
<th>Volume¹</th>
<th>Applications Tested²</th>
</tr>
</thead>
<tbody>
<tr>
<td>44784ZG</td>
<td>EGFR [pY845]</td>
<td>20 μL</td>
<td>WB, IS</td>
</tr>
<tr>
<td>44788ZG</td>
<td>EGFR [pY1068]</td>
<td>20 μL</td>
<td>WB</td>
</tr>
<tr>
<td>44790ZG</td>
<td>EGFR [pY1086]</td>
<td>20 μL</td>
<td>WB</td>
</tr>
<tr>
<td>44792ZG</td>
<td>EGFR [pY1148]</td>
<td>20 μL</td>
<td>WB</td>
</tr>
<tr>
<td>44794ZG</td>
<td>EGFR [pY1173]</td>
<td>20 μL</td>
<td>WB, IS</td>
</tr>
<tr>
<td>44796G</td>
<td>EGFR [R19/48] mAb</td>
<td>100 μL</td>
<td>WB, IP</td>
</tr>
<tr>
<td>44798G</td>
<td>EGFR [H9B4] mAb</td>
<td>100 μL</td>
<td>WB, IP</td>
</tr>
</tbody>
</table>

¹ Using each of the supplied phosphorylation site-specific antibodies (PSSAs) at a starting dilution of 1:1,000 provides 20 mL working solution for each antibody, which at 10 mL per mini-gel blot allows 2 mini-blots to be performed. The exact concentration is not determined for each lot, however the typical range is 0.1-1.0 mg/mL. With the EGFR pan/total antibodies, the 100 μL provided allows 100 mL of blotting solution to be prepared when diluting the stock at 1:1,000. This allows 10 mini-blots to be performed with each pan antibody. The optimal antibody dilution should be determined empirically for each specific application and testing system.

² Applications indicated include: WB (Western blotting), IP (immunoprecipitation), IS (immunostaining).

Target Group:
Epidermal Growth Factor Receptor, also known as ErbB-1 (EGFR, a 185 kDa glycoprotein) is a transmembrane tyrosine kinase that regulates a variety of biological responses ranging from mitogenesis to stress signaling. The EGFR consists of a large extracellular domain, a single transmembrane domain and a cytoplasmic domain that exhibits kinase activity. Upon binding of EGF to the extracellular domain, the receptor undergoes dimerization and becomes phosphorylated on several tyrosine residues within the cytoplasmic domain. These events result in EGFR activation and increased tyrosine kinase activity toward a variety of intracellular substrates. For example, autophosphorylation of tyrosine 845 is mediated by integrin engagement and Src, and regulates receptor function and tumor progression. Autophosphorylation of tyrosine 1068, on the other hand, allows binding of Grb2 and activation of the Ras → Raf → ERK1&2 signaling pathway. Autophosphorylation of tyrosine 1173 creates a major binding site for the protein tyrosine phosphatase SHP-1, which can dephosphorylate the EGFR and thereby block EGFR-induced activation of the ERK1&2 signaling pathway. The EGFR PSSA Sampler Pack allows one to readily study selective phosphoregulation of multiple sites along the EGFR.

Form of Antibodies:
All PSSAs (44784ZG, 44788ZG, 44790ZG, 44792ZG, and 44794ZG) are affinity purified rabbit polyclonal immunoglobulins. The PSSAs as well as the pan/total EGFR monoclonal antibodies (IgG₁ + IgG₂a for 44796ZG and IgG₁ for 44798ZG) are formulated in Dulbecco’s phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.3 (+/- 0.1), 50% glycerol with 1.0 mg/mL BSA (IgG, protease free) as a carrier and 0.05% sodium azide as a preservative. Caution: sodium azide is a poisonous and hazardous substance; handle with care and dispose of properly.

This product is for research use only. Not for use in diagnostic procedures.

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PI44799G

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Storage: Store at −20°C. We recommend a brief centrifugation before opening to settle vial contents. Then, apportion into working aliquots and store at −20°C. For shipment or short-term storage (up to one week), 2-8°C is sufficient.

Expiration Date: Expires one year from date of receipt when stored as instructed.

References:


Up-regulation

Extracts of human epidermoid carcinoma (A431) cells unstimulated (-EGF) or stimulated with 200 ng/mL EGF for 15 minutes (+EGF) were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to nitrocellulose. The membrane was blocked with a 5% Ig-free BSA-TBST buffer overnight at 4°C, and then incubated with each of the antibodies at 1:1,000 for two hours at room temperature in a 1% Ig-free BSA-TBST buffer. After washing, the membrane was incubated with goat F(ab’2) anti-rabbit IgG alkaline phosphatase conjugate (Cat. # ALI4405) and signals were detected using the Tropix WesternStar™ method.