

PE anti-human EGFR Antibody

| | |
|--------------------------|--|
| Catalog# / Size | 352903 / 25 tests 352904 / 100 tests |
| Clone | AY13 |
| Regulatory Status | RUO |
| Other Names | Proto-oncogene c-ErbB-1, Receptor tyrosine-protein kinase erbB-1, HER1 |
| Isotype | Mouse IgG1, κ |
| Description | Epidermal growth factor receptor (EGFR) is a transmembrane glycoprotein and member of the protein kinase superfamily that regulates cell growth and differentiation. EGFR binds EGF, TGF- α , amphiregulin, betacellulin, heparin-binding EGF-like growth factor, GP30, and vaccinia virus growth factor - all members of the EGF family. Ligand binding induces EGFR dimerization and autophosphorylation, initiating the MAPK, Akt, and JNK signaling pathways. EGFR is expressed by epithelial and endothelial cells and is frequently expressed by epithelial carcinomas. |

Product Details

| | |
|---|---|
| Verified Reactivity | Human |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Immunogen | Non-small cell lung cancer (NSCLC) cell line NCI-H322 |
| Formulation | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA) |
| Preparation | The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. |
| Concentration | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.) |
| Storage & Handling | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze. |
| Application | FC - Quality tested |
| Recommended Usage | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. |
| Excitation Laser | Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm) |
| Application References | 1. Yamaguchi M, <i>et al.</i> 2009. The 15th Annual Meeting Japan Society of Gene Therapy. p1056. Abstract 92. |
| (PubMed link indicates BioLegend citation) | |
| Product Citations | <ol style="list-style-type: none"> 1. Wang Y, <i>et al.</i> 2014. Biomaterials. 35:4297. PubMed 2. Sreevalsan S, <i>et al.</i> 2020. EMBO Rep. 21:e50155. PubMed 3. Kitamura Y, <i>et al.</i> 2021. Sci Adv. 7: . PubMed 4. Halim L, <i>et al.</i> 2017. Cell Rep. 10.1016/j.celrep.2017.06.079. PubMed 5. Bak R and Proteus M. 2017. Cell Rep. 10.1016/j.celrep.2017.06.064. PubMed 6. Wang JL, <i>et al.</i> 2022. Cancers (Basel). 14: . PubMed 7. Lu T, <i>et al.</i> 2022. Nat Commun. 13:2576. PubMed 8. Jayasinghe MK, <i>et al.</i> 2022. Theranostics. 12:3288. PubMed 9. Aldeghaither DS, <i>et al.</i> 2019. Cancer Immunol Res. 7:230. PubMed 10. Carnevale J, <i>et al.</i> 2022. Nature. 609:174. PubMed 11. Grass G, <i>et al.</i> 2013. J Biol Chem. 288:26089. PubMed |

12. Ahn S, *et al.* 2019. *Cancer Immunol Res.* 0.828472222. [PubMed](#)
13. Wing A, *et al.* 2018. *Cancer Immunol Res.* 6:605. [PubMed](#)
14. Edinger N, *et al.* 2016. *PLoS One.* 11: 0162321. [PubMed](#)
15. Han X, *et al.* 2017. *Mol Ther.* 10.1016/j.ymthe.2017.07.009. [PubMed](#)
16. Brohl AS, *et al.* 2021. *Cell Rep.* 37:110047. [PubMed](#)
17. Okada R, *et al.* 2021. *EBioMedicine.* 67:103345. [PubMed](#)
18. Jarantow S, *et al.* 2015. *J Biol Chem.* 290: 24689 - 24704. [PubMed](#)
19. Li G, *et al.* 2021. *Mol Ther Oncolytics.* 22:507. [PubMed](#)
20. Quijano-Rubio A, *et al.* 2022. *Nat Biotechnol.* Online ahead of print. [PubMed](#)
21. Fischer A, *et al.* 2020. *Toxins (Basel).* 12:00. [PubMed](#)

RRID AB_10898161 (BioLegend Cat. No. 352903)
 AB_10896794 (BioLegend Cat. No. 352904)

Antigen Details

| | |
|---------------------------|---|
| Structure | Member of the protein kinase superfamily; transmembrane glycoprotein; ligand binding induces dimerization and autophosphorylation |
| Distribution | Epithelial cells and endothelial cells; frequently found in epithelial carcinomas |
| Function | Controls cell growth and differentiation |
| Interaction | MAPK, Akt, JNK |
| Ligand/Receptor | Members of the epidermal growth factor (EGF) family such as EGF, TGF- α , amphiregulin, betacellulin, heparin-binding EGF-like growth factor, GP30 and vaccinia virus growth factor |
| Cell Type | Endothelial cells, Epithelial cells |
| Biology Area | Cell Biology, Cell Cycle/DNA Replication, Immunology, Innate Immunity, Neuroscience, Synaptic Biology |
| Molecular Family | CD Molecules, Growth Factors |
| Antigen References | <ol style="list-style-type: none"> 1. da Cunha Santos G, <i>et al.</i> 2011. <i>Annu. Rev. Pathol.</i> 6:49. 2. Gusterson BA and Hunter KD. 2009. <i>Lancet Oncol.</i> 10:522. 3. Mano M and Humblet Y. 2008. <i>Nat. Clin. Pract. Oncol.</i> 5:415. 4. Pao W and Chmielecki J. 2010. <i>Nat. Rev. Cancer</i> 10:760. |
| Gene ID | 1956 |

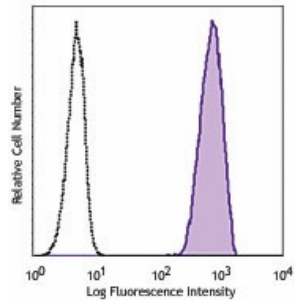
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human EGFR, PE anti-human EGFR, APC anti-human EGFR, Alexa Fluor® 488 anti-human EGFR, Brilliant Violet 421™ anti-human EGFR, PE/Cyanine7 anti-human EGFR, PerCP/Cyanine5.5 anti-human EGFR, Alexa Fluor® 594 anti-human EGFR, Alexa Fluor® 647 anti-human EGFR, Brilliant Violet 711™ anti-human EGFR, PE/Dazzle™ 594 anti-human EGFR, TotalSeq™-A0132 anti-human EGFR, Brilliant Violet 605™ anti-human EGFR, APC/Fire™ 750 anti-human EGFR, TotalSeq™-B0132 anti-human EGFR, TotalSeq™-C0132 anti-human EGFR, Biotin anti-human EGFR

Product Data



Human cervical cancer cell line HELA was stained with EGFR (clone AY13) PE (filled histogram) or mouse IgG1, κ PE isotype control (open histogram).

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587