

## ARG10518 anti-EGFR antibody [EGFR1]

Package: 100 µg, 50 µg  
Store at: -20°C

### Summary

|                     |   |
|---------------------|---|
| Product Description | Mouse Monoclonal antibody [EGFR1] recognizes EGFR   |
| Tested Reactivity   | Hu, Ms, Hrs   |
| Tested Application  | FACS, ICC/IF, IHC-Fr, IP, WB  |
| Host                | Mouse   |
| Clonality           | Monoclonal  |
| Clone               | EGFR1   |
| Isotype             | IgG2b   |
| Target Name         | EGFR  |
| Species             | Human   |
| Immunogen           | Human epidermoid carcinoma line A431  |
| Conjugation         | Un-conjugated   |
| Alternate Names     | PIG61; ERBB1; Proto-oncogene c-ErbB-1; Receptor tyrosine-protein kinase erbB-1; NISBD2; Epidermal growth factor receptor; ERBB; HER1; EC 2.7.10.1; mENA |

### Application Instructions

| Application table | Application  | Dilution  |
|-------------------|--|---|
|                   | FACS   | 1µg for 10 <sup>6</sup> cells. (unsuitable for fixed cells) |
|                   | ICC/IF   | 1 µg/ml   |
|                   | IHC-Fr   | Assay-dependent.  |
|                   | IP   | Assay-dependent.  |
|                   | WB   | Assay-dependent.  |
| Application Note  | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |   |

### Properties

|                     |  |
|---------------------|--|
| Form                | Liquid   |
| Purification        | Purified by affinity chromatography.   |
| Buffer              | PBS and 0.02% Sodium azide   |
| Preservative        | 0.02% Sodium azide   |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |

Note For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

---

|                |  |
|----------------|--|
| Database links | <a href="#">GeneID: 13649 Mouse</a><br><a href="#">GeneID: 1956 Human</a><br><a href="#">Swiss-port # P00533 Human</a><br><a href="#">Swiss-port # Q01279 Mouse</a>  |
| Gene Symbol    | EGFR   |
| Gene Full Name | epidermal growth factor receptor   |
| Background     | EGFR is a transmembrane glycoprotein. It is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer. [provided by RefSeq, Jun 2016]  |
| Function       | <p>EGFR: Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:2790960, PubMed:10805725, PubMed:27153536). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:2790960, PubMed:7679104, PubMed:8144591, PubMed:9419975, PubMed:15611079, PubMed:12297049, PubMed:27153536, PubMed:20837704). Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules (PubMed:27153536). May also activate the NF-kappa-B signaling cascade (PubMed:11116146). Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling (PubMed:11602604). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:11483589). Plays a role in enhancing learning and memory performance.</p> <p>Isoform 2 may act as an antagonist of EGF action.</p> <p>(Microbial infection) Acts as a receptor for hepatitis C virus (HCV) in hepatocytes and facilitates its cell entry. Mediates HCV entry by promoting the formation of the CD81-CLDN1 receptor complexes that are essential for HCV entry and by enhancing membrane fusion of cells expressing HCV envelope glycoproteins. [UniProt]</p> |
| Highlight      | Related Antibody Duos and Panels:<br><a href="#">ARG30238 Phospho EGFR Antibody Duo (Total, pY992)</a><br>Related products:<br><a href="#">EGFR antibodies</a> ; <a href="#">EGFR ELISA Kits</a> ; <a href="#">EGFR Duos / Panels</a> ; <a href="#">Anti-Mouse IgG secondary antibodies</a> ;  |
| Research Area  | Cancer antibody; Signaling Transduction antibody   |
| Calculated Mw  | 134 kDa  |
| PTM            | <p>Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated. Phosphorylation at Thr-678 and Thr-693 by PRKD1 inhibits EGF-induced MAPK8/JNK1 activation. Dephosphorylation by PTPRJ prevents endocytosis and stabilizes the receptor at the plasma membrane. Autophosphorylation at Tyr-1197 is stimulated by methylation at Arg-1199 and enhances interaction with PTPN6. Autophosphorylation at Tyr-1092 and/or Tyr-1110 recruits STAT3. Dephosphorylated by PTPN1 and PTPN2.</p> <p>Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting. Polyubiquitin linkage is mainly through 'Lys-63', but linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occurs. Deubiquitination by OTUD7B prevents degradation. Ubiquitinated by RNF115 and RNF126 (By similarity). Methylated. Methylation at Arg-1199 by PRMT5 stimulates phosphorylation at Tyr-1197.</p>   |