

ARG81405 Human EGFR ELISA Kit

Package: 96 wells
Store at: 4°C

Component

| Cat. No. | Component Name | Package | Temp |
|--------------|---------------------------------------|----------------------|---|
| ARG81405-001 | Antibody-coated microplate | 8 X 12 strips | 4°C. Unused strips should be sealed tightly in the air-tight pouch. |
| ARG81405-002 | Standard | 2 X 10 ng/vial | 4°C |
| ARG81405-003 | Standard/Sample diluent | 30 ml (Ready to use) | 4°C |
| ARG81405-004 | Antibody conjugate concentrate (100X) | 1 vial (100 µl) | 4°C |
| ARG81405-005 | Antibody diluent buffer | 12 ml (Ready to use) | 4°C |
| ARG81405-006 | HRP-Streptavidin concentrate (100X) | 1 vial (100 µl) | 4°C |
| ARG81405-007 | HRP-Streptavidin diluent buffer | 12 ml (Ready to use) | 4°C |
| ARG81405-008 | 25X Wash buffer | 20 ml | 4°C |
| ARG81405-009 | TMB substrate | 10 ml (Ready to use) | 4°C (Protect from light) |
| ARG81405-010 | STOP solution | 10 ml (Ready to use) | 4°C |
| ARG81405-011 | Plate sealer | 4 strips | Room temperature |

Summary

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|---------------------|---|
| Product Description | ARG81405 Human EGFR ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human EGFR in serum, plasma (heparin, EDTA), human milk and cell culture supernatants. |
| Tested Reactivity | Hu |
| Tested Application | ELISA |
| Specificity | There is no detectable cross-reactivity with other relevant proteins. |
| Target Name | EGFR |
| Conjugation | HRP |
| Conjugation Note | Substrate: TMB and read at 450 nm. |
| Sensitivity | 78 pg/ml |
| Sample Type | Serum, plasma (heparin, EDTA), human milk and cell culture supernatants. |
| Standard Range | 156 - 10000 pg/ml |
| Sample Volume | 100 µl |

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| Precision | Intra-Assay CV: 5.7% Inter-Assay CV: 6.5% |
| 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

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|------------|-----------|
| Assay Time | ~ 5 hours |
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Properties

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| Form | 96 well |
| Storage instruction | Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components. |
| Note | For laboratory research only, not for drug, diagnostic or other use. |

Bioinformation

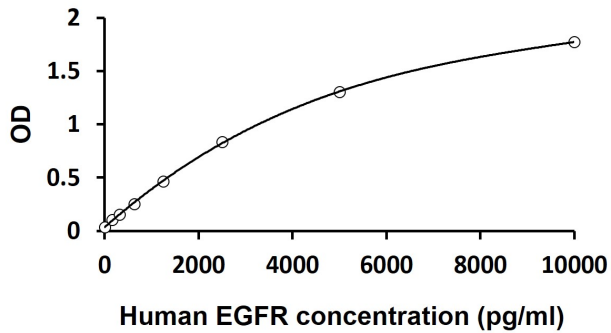
| | |
|----------------|--|
| Gene Symbol | EGFR |
| Gene Full Name | epidermal growth factor receptor |
| Background | EGFR is a transmembrane glycoprotein. It is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell 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 | <p>Related products:</p> <p>EGFR antibodies; EGFR ELISA Kits; EGFR Duos / Panels;</p> <p>New ELISA data calculation tool:</p> <p>Simplify the ELISA analysis by GainData</p> |
| PTM | 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.

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. [UniProt]

Images



ARG81405 Human EGFR ELISA Kit standard curve image

ARG81405 Human EGFR ELISA Kit results of a typical standard run with optical density reading at 450 nm.