ARG83044
Human EGFR ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG83044 Human EGFR ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human EGFR in serum, plasma (heparin), ascites, urine and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	Not cross-reacts with: Human EGF, ErbB3, ErbB2, ErbB4. Mouse EGF.
Target Name	EGFR
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	7.8 pg/ml
Sample Type	Serum, plasma (heparin), ascites, urine and cell culture supernatants.
Standard Range	15.6 - 1000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: less than 10% Inter-Assay CV: less than 10%
Alternate Names	EGFR, Epidermal Growth Factor Receptor, ERBB1, ERRP, ERBB, Receptor Tyrosine Protein Kinase ErbB1, Erb B2 Receptor Tyrosine Kinase 1, Proto Oncogene C ErbB 1, EC 2.7.10.1, HER1, Epidermal Growth Factor Receptor (Avian Erythroblastic Leukemia Viral (V Erb B) Oncogene Homolog), Erythroblastic Leukemia Viral (V Erb B) Oncogene Homolog (Avian), Avian Erythroblastic Leukemia Viral (V Erb B) Oncogene Homolog, Epidermal Growth Factor Receptor Tyrosine Kinase Domain, Cell Proliferation Inducing Protein 61, Cell Growth Inhibiting Protein 40, EGFR VIII, EC 2.7.10, NISBD2, PIG61, MENA

Application Instructions

|	
Assay Time	~ 4 hours

Properties

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	The protein encoded by this gene is a transmembrane glycoprotein that 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, thus inducing receptor dimerization and tyrosine autophosphorylation leading to cell proliferation. Mutations in this gene are associated with lung cancer. EGFR is a component of the cytokine storm which contributes to a severe form of Coronavirus Disease 2019 (COVID-19) resulting from infection with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). [provided by RefSeq, Jul 2020]
Function	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. [Uniprot]
Highlight	Related products: EGFR antibodies; EGFR ELISA Kits; EGFR Duos / Panels; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
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. [UniProt]
Cellular Localization	Cell membrane, Endoplasmic reticulum, Endosome, Golgi apparatus, Membrane, Nucleus, Secreted. [UniProt]

Images
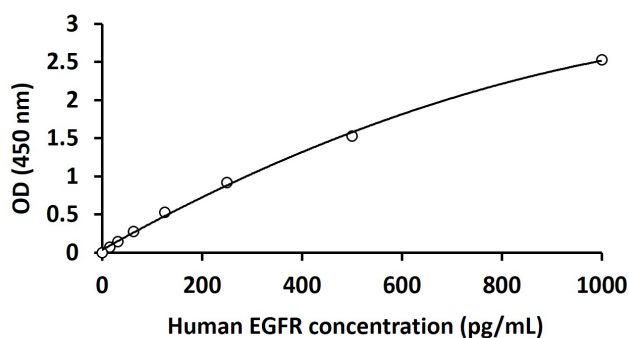
ARG83044 Human EGFR ELISA Kit standard curve image

ARG83044 Human EGFR ELISA Kit results of standard run with optical density reading at 450 nm