



Human epidermal growth factor receptor,EGFR

ELISA Kit

Product Code	CSB-E12124h
Abbreviation	EGFR
Protein Biological Process 1	Cytokine
Target Name	epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian)
Uniprot No.	P00533
Alias	ERBB, ERBB1, HER1, PIG61, mENA, avian erythroblastic leukemia viral (v-erb-b) oncogene homolog cell growth inhibiting protein 40 cell proliferation-inducing protein 61 epidermal growth factor recept
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	0.312 ng/mL-20 ng/mL
Sensitivity	0.019 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	EGFR
Tag Info	quantitative
Protein Description	Sandwich

Description

The product CSB-E12124h is a sandwich ELISA kit developed to measure concentrations of human EGFR in serum, plasma, or tissue homogenates. This assay uses the sandwich enzyme immunoassay technique in combination with the enzyme-substrate chromogenic reaction to quantify the analyte in the sample. The color develops positively to the amount of EGFR in samples. The color intensity is measured at 450 nm via a microplate reader.

EGFR regulates epithelial tissue development and homeostasis in a physiological context. It is involved in the growth, differentiation, maintenance, and repair of various tissues and organs also including the nervous system. In



pathological settings, mostly in lung and breast cancer and in glioblastoma, EGFR drives tumorigenesis. EGFR is frequently mutated and/or overexpressed in different types of human cancers. It is a key factor in epithelial malignancies, and its activity increases tumor growth, invasion, and metastasis. Overexpression of EGFR and its ligand TGF α by many carcinomas correlates with the development of cancer metastasis, resistance to chemotherapy, and poor prognosis.

Target Details

This protein 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. 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.

Product Precision
Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human EGFR in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:5	Average %	101
	Range %	95-104
1:10	Average %	99
	Range %	91-103
1:20	Average %	94
	Range %	87-98
1:40	Average %	108
	Range %	97-112

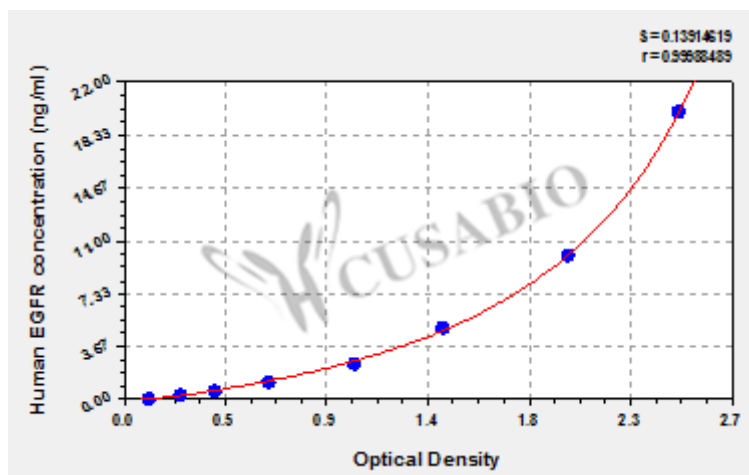
Recovery

The recovery of human EGFR spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	103	96-107
EDTA plasma (n=4)	93	84-97

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	Corrected
20	2.522	2.463	2.493	2.375
10	2.018	1.977	1.998	1.880
5	1.408	1.463	1.436	1.318
2.5	1.051	1.025	1.038	0.920
1.25	0.666	0.647	0.657	0.539
0.625	0.427	0.403	0.415	0.297
0.312	0.264	0.261	0.263	0.145
0	0.119	0.117	0.118	?

Msds

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