

Human Heregulinbeta-1 ELISA Kit | HRG1 elisa kit

Heregulinbeta-1 (Human) OmniKine ELISA Kit

CATALOG #
AAA315843

REACTIVITY
Human

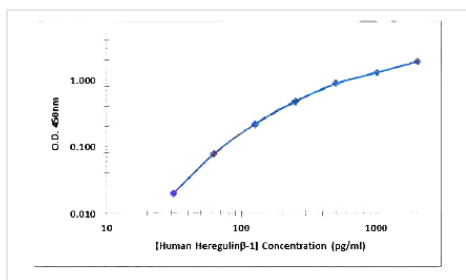
PRODUCT SYNONYMS

Heregulinbeta-1; Heregulinbeta-1 (Human) OmniKine ELISA Kit; Neuregulin 1; Pro-NRG1; HRGA; SMDF; HGL; GGF; NDF; NRG1 Intronic Transcript 2 (Non-Protein Coding); Heregulin; Alpha (45kD; ERBB2 P185-Activator); Acetylcholine Receptor-Inducing Activity; Pro-Neuregulin-1; Membrane-Bound Isoform; Sensory And Motor Neuron Derived Factor; Neu Differentiation Factor; Glial Growth Factor; NRG1-IT2; MSTP131; MST131; ARIA; GGF2; HRG; HRG1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The OmniKine Human Heregulinbeta-1 ELISA is capable of recognizing both recombinant and naturally produced Human Heregulinbeta-1 proteins. The antigens listed below were tested at 50ng/ml the following antigens did not exhibit significant cross reactivity Human EGF, EGF Receptor, EG-VEGF, Epigen, Epiregulin, HB-EGF, TGF-alpha, VEGF Murine EGF, VEGF Rat EGF, VEGF
Form/Format	12 x 8-Well Microstrips
Sequence Length	607
Assay Type	Quantitative Sandwich
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for HRG1 elisa kit	Principle of the Assay: The OmniKine Human EGFR ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human EGFR concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human EGFR while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a colorimetric reaction to ensue upon substrate addition. When the substrate TMB (3, 3', 5, 5'-Tetramethylbenzidine) is added, the reaction catalyzed by peroxidase yields a blue color that is representative of the antigen concentration. Upon sufficient color development, the reaction can be terminated through addition of Stop Solution (2 N Sulfuric Acid) where the color of the solution will turn yellow. The absorbance of each well can then be read by a spectrophotometer, allowing for generation of a standard curve and subsequent determination of protein concentration!!Background/Introduction: Human EGF receptor is not only a cell surface receptor for EGF, but also for other members of the EGF family, such as TGF-alpha, BTC/betacellulin, AREGAREGB/amphiregulin, HBEGF, GP30 and vaccinia virus growth factor. Ligand binding triggers a conformation change, leading to activation of the kinase and subsequent phosphorylation of down-stream protein kinases. Hence, EGF receptor is involved in the control of cell growth, proliferation and differentiation. Such receptor also phosphorylates MUC1 in breast cancer cells and increases the interaction of MUC1 with SRC and CTNNB1/beta-catenin. EGF binding triggers dimerization of the receptor and promotes auto-phosphorylation. The activate receptor dimer binds one EGF molecule while the heterodimer binds with ERBB2 and interacts with ERRF1. Interaction with ERRF1 inhibits dimerization of the kinase domain and auto-phosphorylation. ERRF1 bounded EGF receptor also binds with RIPK1 and interacts with CBL via the auto-phosphorylated C-terminal tail. EGF receptor is part of a complex with ERBB2 and either PIK3C2A or PIK3C2B that may indirectly interact in the auto-phosphorylated form with PIK3C2B. Upon EGF treatment, the ligand bounded receptor complex also interacts with PELP1, binds with MUC1, interacts with AP2M1, interacts with GAB2, and interacts with COPG. These interactions are essential for regulation of EGF-dependent nuclear transport of EGFR by retrograde trafficking from the Golgi to the ER. In addition, EGF receptor interacts with FER and TNK2. Such interaction is dependent on EGF stimulation and kinase activity of EGFR. EGF receptor phosphorylation of Ser-695 is partial and occurs only if Thr-693 is phosphorylated. Monoubiquitinated and polyubiquitinated occur 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' while linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occur. Studies have shown that defects in EGFR are associated with lung cancer.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	236461509
NCBI GeneID	3084
NCBI Accession #	NP_001153467.1
NCBI GenBank Nucleotide #	NM_001159995.2
UniProt Accession #	Q02297; O14667; P98202; Q02298; Q02299; Q07110; Q07111; A5YAK4; A5YAK5; A8K1L2; B7Z4Z3; E9PHH4
Molecular Weight	46,226 Da
NCBI Official Full Name	pro-neuregulin-1, membrane-bound isoform isoform HRG-beta1c
NCBI Official Synonym Full Names	neuregulin 1
NCBI Official Symbol	NRG1
NCBI Official Synonym Symbols	GGF; HGL; HRG; NDF; ARIA; GGF2; HRG1; HRGA; SMDF; MST131; MSTP131; NRG1-IT2
NCBI Protein Information	pro-neuregulin-1, membrane-bound isoform
UniProt Protein Name	Pro-neuregulin-1, membrane-bound isoform
UniProt Gene Name	NRG1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hrg1-human-elisa-kits/heregulinbeta-1/315843>