Datasheet for ABIN2859250

ERBB3 ELISA Kit

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Overview

Quantity:	96 tests
Target:	ERBB3
Binding Specificity:	AA 20-643
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human ERBB3/Her3
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: S20-T643
Specificity:	NSO, S20-T643
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	ERBB3
Alternative Name:	ERBB3 (ERBB3 Products)
Background:	Protein Function: Binds and is activated by neuregulins and NTAK. May also be activated by CSPG5. . Background: Receptor tyrosine-protein kinase erbB-3, also known as HER3 (human epidermal growth factor receptor 3), is a membrane bound protein that in humans is encoded by the ERBB3 gene. ErbB3 has been shown to bind the ligands heregulin and NRG-2. Ligand binding causes a change in conformation that allows for dimerization, phosphorylation, and activation of signal transduction. ErbB3 can heterodimerize with any of the other three ErbB family members. The theoretical ErbB3 homodimer would be non-functional because the kinase-impaired protein requires transphosporylation by its binding partner to be active. Unlike the other ErbB receptor tyrosine kinase family members which are activated through autophosphorylation upon ligand binding, ErbB3 is found to be kinase impaired, having only 1/1000th the autophosphorylation activity of EGFR and no ability to phosphorylate other proteins. Therefore, ErbB3 must act as anallosteric activator. Synonyms: Receptor tyrosine-protein kinase erbB-3,2.7.10.1,Proto-oncogene-like protein c-ErbB-3,Tyrosine kinase-type cell surface receptor HER3,ERBB3,HER3, Full Gene Name: Receptor tyrosine-protein kinase erbB-3 Cellular Localisation: Isoform 1: Cell membrane, Single-pass type I membrane protein.
Gene ID:	2065
UniProt:	P21860
Pathways:	RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway

Application Details

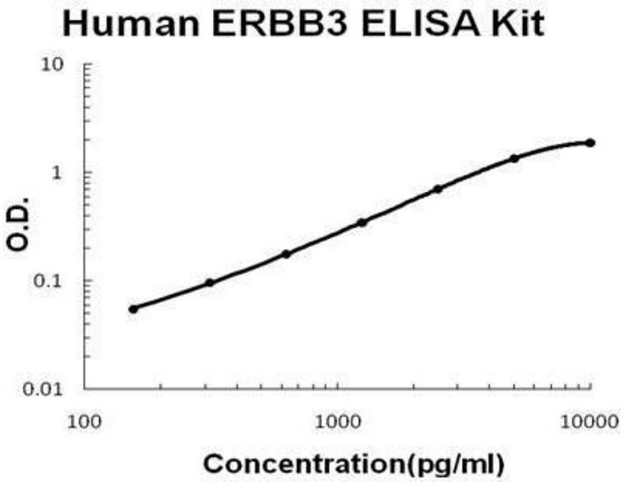
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Comment:	Tissue Specificity: Epithelial tissues and brain.
Plate:	Pre-coated
Protocol:	human ERBB3 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for ERBB3 has been precoated onto 96-well plates. Standards (NSO, S20-T643) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ERBB3 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human ERBB3 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human ERBB3 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human ERBB3 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.65, Standard deviation: 0.086, CV(%): 5.2 • Sample 2: n=16, Mean(ng/ml): 4.4, Standard deviation: 0.198, CV(%): 4.5 • Sample 3: n=16, Mean(ng/ml): 6.25, Standard deviation: 0.294, CV(%): 4.7, • Sample 1: n=24, Mean(ng/ml): 1.37, Standard deviation: 0.081, CV(%): 5.9 • Sample 2: n=24, Mean(ng/ml): 3.56, Standard deviation: 0.182, CV(%): 5.1 • Sample 3: n=24, Mean(ng/ml): 7.19, Standard deviation: 0.446, CV(%): 6.2
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human ERBB3/Her3 PicoKine ELISA Kit standard curve