Active Recombinant Human ERBB2 Protein, DDDDK-tagged, FITC conjugated

Cat. No. ERBB2-177HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ERBB2 Protein (NP_004439.2, 1-652aa), was expressed in HEK293 cell with C-terminal DDDDK tag and FITC conjugate.
Species	Human
Source	HEK293
ProteinLength	1-652 aa
Description	This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized.
Bio-activity	1. Measured by its binding ability in a functional ELISA. Immobilized Human

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	Her2/ERBB2 at 2 μg/mL (100 μL/well) can bind Herceptin, the EC50 of Herceptin is 7.0-30.0 ng/mL. 2. Measured by its ability to block anti-ErbB2 mediated inhibition of BT474 human breast ductal carcinoma cell proliferation. The ED50 for this effect is 0.4-2.4 μg/mL in the presence of 0.6 μg/mL Anti-ErbB2/Her2 Monoclonal Antibody.
Molecular Mass	70 kDa
N-terminal Sequence Analysis	Thr 23
Endotoxin	< 1.0 EU/ μg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE
Characteristic	Disulfide-linked homodimer Labeled with FITC via amines Excitation source: 488 nm spectral line, argon-ion laser Excitation Wavelength: 488 nm Emission Wavelength: 535 nm
Storage	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Shipping	At ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are

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	shipped out with blue ice unless customers require otherwise.
Conjugation	FITC

GENE INFORMATION

Gene Name	ERBB2 erb-b2 receptor tyrosine kinase 2 [Homo sapiens (human)]
Official Symbol	ERBB2
Synonyms	ERBB2; erb-b2 receptor tyrosine kinase 2; NEU; NGL; HER2; TKR1; CD340; HER-2; MLN 19; HER-2/neu;
Gene ID	2064
mRNA Refseq	NM_004448
Protein Refseq	NP_004439
MIM	164870
UniProt ID	P04626

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