



# Human Anti-Human EGFR (Matuzumab) Monoclonal Antibody, clone Matuzumab [Biosimilar] (CABT-Z674H)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	This is a reformatted human IgG4 antibody based on the therapeutic Fab fragment.
<b>Immunogen</b>	Domain III of the extracellular domain of human EGFR.
<b>Isotype</b>	IgG1, κ
<b>Source/Host</b>	Human
<b>Species Reactivity</b>	Human
<b>Clone</b>	Matuzumab
<b>Purification</b>	Protein A purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	FC, WB, BL
<b>Format</b>	Liquid
<b>Concentration</b>	Lot specific
<b>Size</b>	200 µg
<b>Buffer</b>	PBS with 0.02% Proclin 300.
<b>Preservative</b>	None
<b>Storage</b>	Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

## BACKGROUND

### Introduction

Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. 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. May also activate the NF-kappa-B signaling cascade. Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin. Isoform 2 may act as an antagonist of EGF action.

### Keywords

EGFR;epidermal growth factor receptor;epidermal growth factor receptor (avian erythroblastic leukemia viral (v erb b) oncogene homolog) , ERBB; ERBB1;erythroblastic leukemia viral (v erb b) oncogene homolog (avian);proto-oncogene c-ErbB-1

## GENE INFORMATION

Gene Name	EGFR
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Entrez Gene ID	<a href="#">1956</a>
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UniProt ID	<a href="#">P00533</a>
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