

# Anti-ERBB1 / EGFR / HER1 Reference Antibody (panitumumab)

Recombinant Antibody  
Catalog # APR10039

## Product Information

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Application	FC, Kinetics, Animal Model
Primary Accession	<a href="#">P00533</a>
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2SA
Calculated MW	134277

## Additional Information

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Target/Specificity	ERBB1 / EGFR / HER1
Endotoxin Conjugation	Unconjugated
Expression system	CHO Cell
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

## Protein Information

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Name	EGFR ( <a href="#">HGNC:3236</a> )
Synonyms	ERBB, ERBB1, HER1
Function	Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed: <a href="#">10805725</a> , PubMed: <a href="#">27153536</a> , PubMed: <a href="#">2790960</a> , PubMed: <a href="#">35538033</a> ). Known ligands include EGF, TGFA/TGF- alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed: <a href="#">12297049</a> , PubMed: <a href="#">15611079</a> , PubMed: <a href="#">17909029</a> , PubMed: <a href="#">20837704</a> , PubMed: <a href="#">27153536</a> , PubMed: <a href="#">2790960</a> , PubMed: <a href="#">7679104</a> , PubMed: <a href="#">8144591</a> , PubMed: <a href="#">9419975</a> ). 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 (PubMed: <a href="#">27153536</a> ). May also activate the NF-kappa-B signaling cascade (PubMed: <a href="#">11116146</a> ). 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 (PubMed:[11602604](#)). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:[11483589](#)). Positively regulates cell migration via interaction with CCDC88A/GIV which retains EGFR at the cell membrane following ligand stimulation, promoting EGFR signaling which triggers cell migration (PubMed:[20462955](#)). Plays a role in enhancing learning and memory performance (By similarity). Plays a role in mammalian pain signaling (long-lasting hypersensitivity) (By similarity).

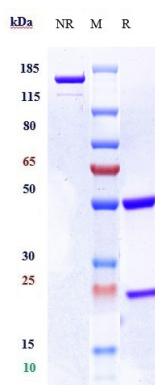
## Cellular Location

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein Golgi apparatus membrane; Single-pass type I membrane protein. Nucleus membrane; Single-pass type I membrane protein. Endosome. Endosome membrane. Nucleus. Note=In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER (PubMed:17909029, PubMed:20674546). Endocytosed upon activation by ligand (PubMed:17182860, PubMed:17909029, PubMed:27153536, PubMed:2790960). Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF) (PubMed:20551055)

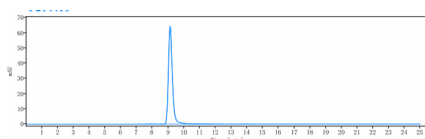
## Tissue Location

Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

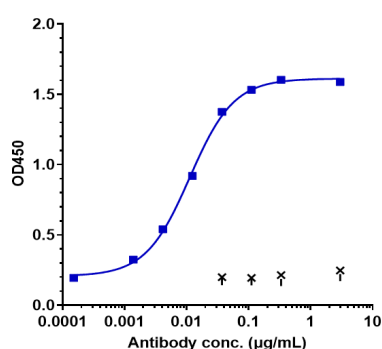
## Images



Anti-ERBB1 / EGFR / HER1 Reference Antibody (panitumumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%

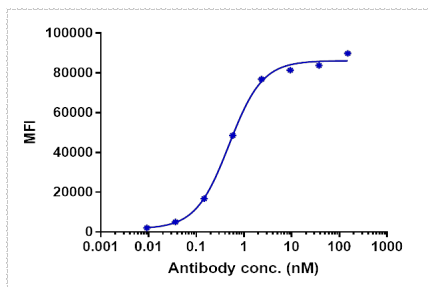


The purity of Anti-ERBB1 / EGFR / HER1 Reference Antibody (panitumumab) is more than 98.8%, determined by SEC-HPLC.



Immobilized human EGFR His at 2 µg/mL can bind Anti-ERBB1 / EGFR / HER1 Reference Antibody (panitumumab),  $EC_{50}=0.0112$  µg/mL

NCI-H292 cells were stained with Anti-ERBB1 / EGFR / HER1 Reference Antibody (panitumumab) and negative



control protein respectively, washed and then followed by PE and analyzed with FACS, EC88=0.4879 nM

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.