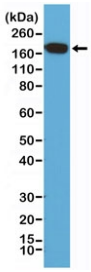
EGFR Antibody / C-Terminal [clone RM294] (R20309)

Catalog No.	Formulation	Size
R20309-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

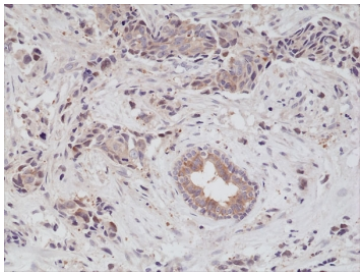
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM294
Purity	Protein A purified from animal origin-free supernatant
UniProt	P00533
Localization	Cell membrane, cytoplasm
Applications	Immunohistochemistry (FFPE): 1:100-1:200 Western Blot: 1:200-1:500
Limitations	This EGFR Antibody / C-Terminal is available for research use only.



Western blot of human HeLa cell lysate using recombinant EGFR antibody at a 1:200 dilution. Expected molecular weight: 134-180 kDa depending on glycosylation level.



IHC staining of formalin fixed and paraffin embedded human breast cancer tissue using recombinant EGFR antibody at a 1:200 dilution. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.

Description

Epidermal growth factor receptor (EGFR), also known as ERBB1 or HER1, is a transmembrane receptor tyrosine kinase that plays a central role in regulating cell proliferation, survival, and differentiation. EGFR Antibody / C-Terminal is designed to detect the intracellular C-terminal region of the receptor, a domain that contains multiple regulatory tyrosine residues and serves as the primary site for signaling complex assembly following receptor activation.

Structurally, EGFR consists of an extracellular ligand-binding domain, a single transmembrane segment, and a cytoplasmic C-terminal tail that contains several autophosphorylation sites. Upon ligand binding, EGFR undergoes dimerization and activation of its kinase domain, resulting in phosphorylation of tyrosine residues within the C-terminal region. These phosphorylated residues function as docking sites for adaptor proteins such as GRB2 and SHC, initiating downstream signaling pathways including MAPK, PI3K-AKT, and JAK-STAT cascades.

The C-terminal domain of EGFR is critical for regulating signal strength, duration, and specificity. Because this region contains multiple phosphorylation sites, antibodies targeting the C-terminus are well-suited for detecting total receptor independent of activation state, while also capturing receptor forms that may be undergoing internalization, recycling, or degradation. This makes a C-terminal EGFR antibody particularly useful for assessing overall receptor abundance across different cellular conditions.

Following activation, EGFR is internalized through endocytic pathways and trafficked to endosomes, where it may be recycled back to the membrane or targeted for degradation. The C-terminal region remains associated with the receptor throughout these processes, allowing consistent detection of EGFR across membrane and intracellular compartments. As a result, staining patterns using C-terminal antibodies often include both membranous and cytoplasmic localization, reflecting the dynamic trafficking behavior of the receptor.

EGFR is widely expressed in epithelial tissues and is frequently overexpressed or dysregulated in cancer. Alterations in EGFR signaling contribute to tumor growth, invasion, and resistance to therapy. Because the C-terminal domain integrates multiple signaling inputs and adaptor interactions, its detection provides insight into receptor presence and cellular distribution without being restricted to a single phosphorylation state. These features support the use of an EGFR Antibody / C-Terminal in studies of receptor biology, tumor signaling, and cellular localization across a wide range of research applications.

Explore our EGFR Antibody (31G7) page for a broader view of EGFR expression and extensively validated antibody performance across applications.

Application Notes

The stated application concentrations are suggested starting points. Titration of the EGFR Antibody / C-Terminal may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the C-terminus of human EGF Receptor was used as the immunogen for the recombinant EGFR antibody.

Storage

Store the EGFR antibody at -20oC.

Copyright © NSJ Bioreagents. All rights reserved.