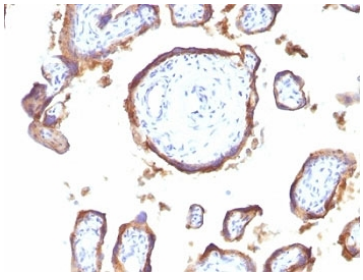
EGFR Antibody / Epidermal growth factor receptor / Extracellular domain [clone GFR1195] (V2487)

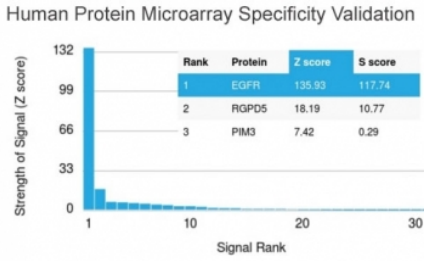
Catalog No.	Formulation	Size
V2487-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2487-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2487SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2487IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

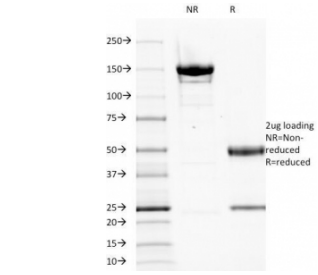
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	GFR1195
Purity	Protein G affinity chromatography
UniProt	P00533
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 2-4ug/ml for 30 min at RT
Limitations	This EGFR antibody is available for research use only.



IHC: Formalin-fixed, paraffin-embedded human placenta stained with EGFR antibody (clone GFR1195).



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using EGFR antibody (clone GFR1195). These results demonstrate the foremost specificity of the GFR1195 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free EGFR antibody (clone GFR1195) as confirmation of integrity and purity.

Description

EGFR Antibody recognizes Epidermal growth factor receptor, a transmembrane receptor tyrosine kinase that mediates ligand-dependent signaling at the cell surface. Epidermal growth factor receptor, also commonly referred to as EGFR, ErbB1, and HER1, is a member of the ErbB receptor family and plays a central role in regulating epithelial cell proliferation, survival, and differentiation. This EGFR Antibody is specifically designed to detect the extracellular region of the receptor, enabling investigation of cell surface-associated EGFR expression and receptor distribution in research applications. The EGFR protein is primarily localized to the plasma membrane, where its extracellular domain binds epidermal growth factor and related ligands to initiate downstream signaling cascades.

The immunogen used for generation of this EGFR Antibody was a recombinant partial Epidermal growth factor receptor protein corresponding to amino acids 25-645, encompassing the extracellular region of the receptor. This region includes key ligand-binding and receptor dimerization domains that are essential for EGFR activation. Detection of the extracellular region allows researchers to study membrane-localized receptor populations and assess EGFR expression at the cell surface without reliance on intracellular epitopes. EGFR Antibody targeting the extracellular domain is therefore well suited for studies focused on receptor biology, surface expression, and receptor-ligand interactions.

Epidermal growth factor receptor is encoded by the EGFR gene and is expressed in a wide range of epithelial tissues, including skin, lung, and gastrointestinal epithelium. Upon ligand binding to the extracellular domain, EGFR undergoes conformational changes that promote receptor dimerization and activation of intracellular signaling pathways such as MAPK and PI3K-AKT. EGFR Antibody enables analysis of receptor expression patterns relevant to epithelial biology, growth regulation, and tissue homeostasis in normal and disease-related experimental models.

Alterations in EGFR expression and signaling are frequently observed in cancer-related research, where Epidermal growth factor receptor contributes to tumor growth, invasion, and therapeutic resistance. Studying the extracellular region of EGFR provides insight into receptor availability at the cell surface and potential modulation of ligand binding. EGFR Antibody clone GFR1195 is designed to recognize the extracellular region of Epidermal growth factor receptor and may be applied to research studies investigating EGFR expression, membrane localization, and receptor-driven signaling processes.

Application Notes

Optimal dilution of the EGFR antibody should be determined by the researcher.

1. Digest formalin-fixed tissues with Protease at 1mg/ml PBS, pH 7.4 for 10 min at 37oC.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant extracellular domain of human EGFR (amino acids 25-645) was used as the immunogen for the EGFR antibody.

Storage

Store the EGFR antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).