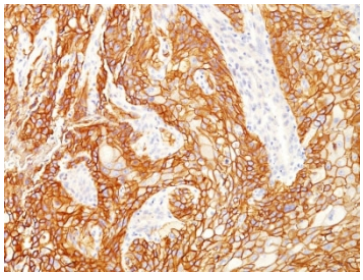
Recombinant EGFRvIII Antibody / EGF Receptor Variant III [clone GFR/2600R] (V3980)

Catalog No.	Formulation	Size
V3980-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3980-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3980SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3980IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

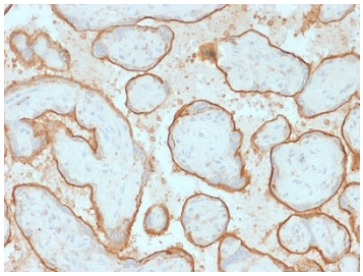
Recombinant RABBIT MONOCLONAL

Bulk quote request

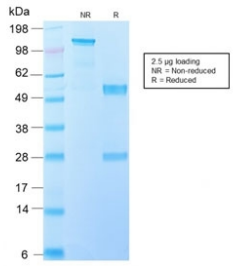
Availability	1-3 business days
Species Reactivity	Human. Other species not tested.
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	GFR/2600R
Purity	Protein A affinity chromatography
UniProt	P00533
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Prediluted IHC Only Format : incubate for 30 min at RT (1)
Limitations	This recombinant EGFRvIII antibody is available for research use only.



IHC testing of FFPE human lung squamous cell carcinoma with recombinant EGFRvIII antibody (clone GFR/2600R). Required HIER: boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool prior to testing.



IHC testing of FFPE human placenta with recombinant EGFRvIII antibody (clone GFR/2600R). Required HIER: boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool prior to testing.



SDS-PAGE analysis of purified, BSA-free recombinant EGFRvIII antibody (clone GFR/2600R) as confirmation of integrity and purity.

Description

Recombinant EGFRvIII antibody is designed to detect EGFR variant III, an oncogenic receptor mutant encoded by the EGFR gene. EGFRvIII arises from an in-frame deletion of exons 2Ã¢Â€Â“7, producing a truncated receptor that cannot bind ligand but signals constitutively. This mutant form is not found in normal tissues but is frequently expressed in glioblastoma and certain other cancers, where it promotes growth, invasion, and therapy resistance. Because of its tumor-specific expression, Recombinant EGFRvIII antibody is a critical tool for understanding malignant biology and advancing targeted treatment strategies.

EGFRvIII retains the transmembrane and tyrosine kinase domains of the wild-type receptor, but the deletion in the extracellular region prevents ligand interaction. Despite this loss, the mutant receptor dimerizes and transmits persistent signaling through PI3K AKT, MAP kinase, and STAT pathways. This constitutive activity enhances survival, angiogenesis, and metabolic adaptation, creating a strong selective advantage for tumor cells. EGFRvIII has therefore become emblematic of oncogenic signaling uncoupled from external growth factor control.

The Recombinant EGFRvIII antibody clone GFR/2600R delivers specific and reproducible detection of this altered receptor. Recombinant production guarantees uniformity between lots, minimizing variability in long-term research projects. Clone GFR/2600R has been cited in peer-reviewed publications examining glioblastoma heterogeneity, tumor signaling dynamics, and targeted therapy approaches. Investigators rely on its ability to clearly distinguish EGFRvIII-positive cells from those expressing only the wild-type receptor, allowing more accurate characterization of tumor subpopulations.

Research using clone GFR/2600R has clarified how EGFRvIII expression is associated with enhanced tumor aggressiveness and worse clinical outcomes. Its detection has been pivotal in developing therapeutic strategies including peptide vaccines, monoclonal antibodies, antibody-drug conjugates, and CAR T cell therapies that selectively target the mutant receptor. By enabling precise identification of EGFRvIII, this antibody provides both a diagnostic marker and a foundation for translational research aimed at exploiting tumor-specific vulnerabilities.

Beyond glioblastoma, EGFRvIII has been reported in subsets of head and neck, lung, and breast cancers, although at lower frequencies. Detecting the mutant receptor across tumor types helps determine patient eligibility for EGFRvIII-directed interventions. The use of clone GFR/2600R ensures reliable results across experimental platforms ranging from tissue sections to cell culture models. Its performance continues to drive progress in both fundamental cancer biology and therapeutic innovation.

NSJ Bioreagents supplies this Recombinant EGFRvIII antibody to support oncology research, diagnostic development, and the exploration of targeted therapies. The protein is also known as epidermal growth factor receptor variant III antibody, EGFR deletion mutant antibody, glioblastoma EGFRvIII antibody, constitutively active EGFR mutant antibody, and tumor-specific EGFR isoform antibody.

Application Notes

Titering of the recombinant EGFRvIII antibody may be required for optimal performance.

1. 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

Amino acids LEEKKGNYVVTDHC were used as the immunogen for the recombinant EGFRvIII antibody. This is the predicted sequence of the exon 2-7 delete fusion region.

Storage

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