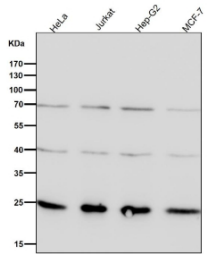
GRB2 Antibody / Growth factor receptor-bound protein 2 [clone 32G61] (FY12210)

Catalog No.	Formulation	Size
FY12210	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

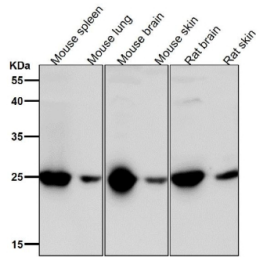
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32G61
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P62993
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This GRB2 antibody is available for research use only.



All lanes use the GRB2 antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the GRB2 antibody at 1:1K dilution for 1 hour at room temperature.

Description

GRB2 antibody detects growth factor receptor-bound protein 2, an adaptor protein central to receptor tyrosine kinase (RTK) signaling. GRB2 consists of one SH2 domain flanked by two SH3 domains, enabling it to couple activated receptors to downstream Ras-MAPK pathways. By binding to phosphorylated tyrosine residues on activated receptors or adaptor proteins such as Shc, GRB2 recruits SOS (Son of Sevenless), which activates Ras and drives proliferation and differentiation signals.

Research using GRB2 antibody underscores its importance in cell signaling. GRB2 is ubiquitously expressed and links a wide variety of RTKs, including EGFR, PDGFR, and FGFR, to MAPK cascades. It also mediates signaling downstream of cytokine receptors, integrins, and immune receptors. GRB2 serves as a hub for integrating growth factor, adhesion, and immune signaling into coherent cellular responses.

Dysregulation of GRB2 activity has been implicated in cancer. Overexpression enhances mitogenic signaling, contributing to tumor initiation and progression. In leukemias, GRB2 forms oncogenic fusion proteins, such as BCR-GRB2, which sustain aberrant Ras signaling. GRB2 is also involved in resistance mechanisms to targeted therapies, where cancer cells bypass inhibited kinases by upregulating adaptor-mediated pathways.

Beyond oncology, GRB2 contributes to immune function, where it regulates T-cell receptor signaling and immune synapse assembly. Genetic studies have linked GRB2 activity to autoimmune conditions and altered inflammatory responses. In developmental biology, GRB2 is essential for embryogenesis, with knockout models demonstrating lethality due to impaired RTK signaling.

Antibodies against GRB2 are validated for western blot, immunoprecipitation, and immunofluorescence. These reagents enable detection of GRB2 expression, assessment of protein-protein interactions, and mapping of RTK signaling dynamics. Clone-based GRB2 antibodies provide specificity across experimental systems, ensuring reproducibility.

NSJ Bioreagents provides this GRB2 antibody for cancer biology, immunology, and cell signaling research.

Application Notes

Optimal dilution of the GRB2 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human GRB2 was used as the immunogen for the GRB2 antibody.

Storage

Store the GRB2 antibody at -20oC.