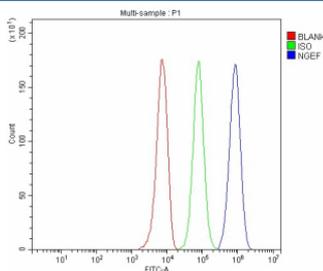


NGEF Antibody / Ephexin 1 (FY12092)

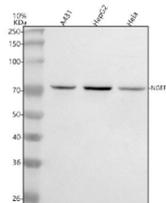
Catalog No.	Formulation	Size
FY12092	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

[Bulk quote request](#)

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q8N5V2
Applications	ELISA : 0.1-0.5ug/ml Flow Cytometry : 1-3ug/million cells Western Blot : 0.25-0.5ug/ml
Limitations	This NGEF antibody is available for research use only.



Flow Cytometry analysis of HepG2 cells using anti-NGEF antibody. Overlay histogram showing HepG2 cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-NGEF antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of NGEF using anti-NGEF antibody. Lane 1: human whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human Hela whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NGEF antibody at 0.5 ug/ml overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected band size for NGEF is at ~82 kDa and ~71 kDa (two isoforms).

Description

NGEF antibody detects Ephexin 1, encoded by the NGEF gene. Ephexin 1 is a guanine nucleotide exchange factor that regulates Rho family GTPases, controlling cytoskeletal dynamics, neuronal signaling, and axon guidance. NGEF antibody provides researchers with a specialized reagent for studying neuronal development, synaptic plasticity, and cell signaling.

Ephexin 1 is activated by ephrin receptor signaling, linking extracellular cues to intracellular Rho GTPase activity. Research using NGEF antibody has shown that it catalyzes GDP to GTP exchange on RhoA, Rac1, and Cdc42, thereby modulating actin cytoskeleton remodeling. These activities govern axon guidance during development, influencing neuronal wiring and brain connectivity.

Studies with NGEF antibody have revealed that Ephexin 1 is enriched in neurons, particularly in growth cones and synaptic regions. Its regulation by ephrin receptors ensures that axons respond appropriately to repulsive or attractive cues. This makes NGEF a critical player in neural circuit formation and brain development.

Dysregulation of Ephexin 1 has been linked to neurological disorders, including developmental delay, intellectual disability, and autism spectrum disorders. Research using NGEF antibody has shown that mutations or altered expression disrupt axon guidance and synaptic function, impairing neuronal communication. These findings highlight its clinical significance.

Beyond the nervous system, NGEF may play roles in cytoskeletal regulation in non-neuronal cells. Research using NGEF antibody has suggested functions in cell migration, immune cell trafficking, and tumor invasion. These roles broaden its biological relevance beyond neurodevelopment.

NGEF antibody is widely applied in immunohistochemistry, western blotting, and immunofluorescence. Immunohistochemistry highlights expression in brain tissue, western blotting quantifies protein levels across developmental stages, and immunofluorescence reveals subcellular localization at synapses. These applications make NGEF antibody indispensable for neurobiology research.

By supplying validated NGEF antibody reagents, NSJ Bioreagents supports studies into axon guidance, synaptic signaling, and disease. Detection of Ephexin 1 provides researchers with insight into how guanine nucleotide exchange factors regulate neuronal wiring and function.

Application Notes

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

Immunogen

E.coli-derived human NGEF recombinant protein (Position: E82-Q627) was used as the immunogen for the NGEF antibody.

Storage

After reconstitution, the NGEF antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.