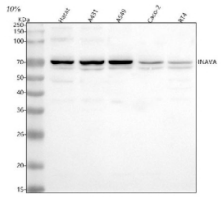
INAVA Antibody / Innate immunity activator (FY12179)

Catalog No.	Formulation	Size
FY12179	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 Na2HPO4.
UniProt	Q3KP66
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This INAVA antibody is available for research use only.



Western blot analysis of INAVA using anti-INAVA antibody. Lane 1: human Hacat whole cell lysates, Lane 2: human whole cell lysates, Lane 3: human whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: human RT4 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-INAVA antibody at 0.5 ug/ml overnight at 4oC, 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 INAVA is at 73/64 kDa (two isoforms).

Description

INAVA antibody detects Innate immunity activator, encoded by the INAVA gene on chromosome 1q32.1. INAVA antibody is commonly used to investigate the immune-regulatory roles of this adaptor protein, which contributes to barrier defense and epithelial homeostasis. INAVA was first identified as a susceptibility gene for inflammatory bowel disease and has since been linked to immune signaling pathways controlling cytokine production and epithelial responses to microbes.

Expression is enriched in intestinal epithelial cells, but it is also present in lung, liver, and immune tissues.

Structurally, INAVA is a cytoplasmic protein with a conserved C-terminal domain that interacts with TRAF6 and other adaptor molecules in innate immune signaling. It contains motifs required for plasma membrane localization and scaffold function. These features enable INAVA to organize signaling complexes that modulate NF-kB activity and cytokine production. Its role as an immune adaptor highlights its importance in frontline defense against microbial invasion.

Functionally, INAVA regulates innate immune signaling by scaffolding TRAF6 and IRAK complexes. It promotes NF-kB activation in response to Toll-like receptor signaling, enhancing transcription of proinflammatory cytokines. In epithelial cells, INAVA coordinates responses to microbial exposure by stabilizing cell junctions and regulating epithelial integrity. Knockdown of INAVA reduces cytokine production and disrupts barrier maintenance, underscoring its protective role. Researchers use INAVA antibody to study epithelial immunity, mucosal defense, and inflammation biology.

Clinically, genetic variants in INAVA are associated with Crohn's disease and ulcerative colitis. Reduced INAVA function contributes to defective epithelial responses and increased susceptibility to intestinal inflammation. INAVA expression changes have also been linked to respiratory infections and sepsis, highlighting its broad role in innate immunity. As an adaptor protein, it represents a potential therapeutic target for inflammatory and infectious diseases. NSJ Bioreagents provides INAVA antibody for use in immune signaling, inflammation, and barrier function studies.

Experimentally, INAVA antibody is applied in western blotting to detect the ~57 kDa protein, in immunofluorescence microscopy to visualize membrane localization, and in immunohistochemistry to study intestinal and epithelial expression. Immunoprecipitation with INAVA antibody reveals binding partners including TRAF6 and IRAK, enabling characterization of its signaling complexes.

Application Notes

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

Immunogen

E.coli-derived human INAVA recombinant protein (Position: Q236-V663) was used as the immunogen for the INAVA antibody.

Storage

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