

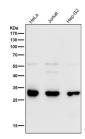
VAPA Antibody / Vesicle-associated membrane protein-associated protein A [clone 32V29] (FY13001)

Catalog No.	Formulation	Size
FY13001	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

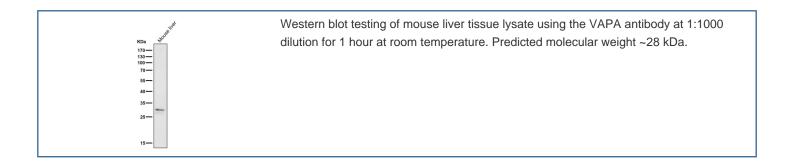
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32V29
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	Q9P0L0
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200
Limitations	This VAPA antibody is available for research use only.



Western blot testing of human samples using the VAPA antibody at 1:1000 dilution for 1 hour at room temperature. Predicted molecular weight ~28 kDa.



Description

VAPA antibody detects Vesicle-associated membrane protein-associated protein A, encoded by the VAPA gene. Vesicle-associated membrane protein-associated protein A is an integral membrane protein localized mainly to the endoplasmic reticulum and involved in membrane trafficking, lipid transfer, and inter-organelle communication. It is part of the VAP protein family, which also includes VAPB, and plays a role in tethering endoplasmic reticulum membranes to other organelles, including the Golgi, mitochondria, and plasma membrane. VAPA antibody provides researchers with a critical tool to study intracellular transport, organelle homeostasis, and lipid signaling.

Vesicle-associated membrane protein-associated protein A interacts with multiple partners through its major sperm protein domain, including proteins containing FFAT motifs that mediate lipid exchange at membrane contact sites. Research using VAPA antibody has demonstrated that these contacts allow the direct transfer of lipids such as phosphoinositides, ceramides, and cholesterol between membranes, bypassing vesicular trafficking. This function is essential for maintaining lipid composition, signaling, and organelle identity. Dysregulation of these processes contributes to neurodegeneration, metabolic syndromes, and viral infection.

In virology, VAPA has been implicated in the life cycles of several viruses, including hepatitis C virus and enteroviruses, which hijack VAPA-dependent contact sites to establish replication organelles. Studies with VAPA antibody have shown that viral proteins interact with Vesicle-associated membrane protein-associated protein A to remodel endoplasmic reticulum membranes, creating environments conducive to viral replication. These findings highlight the relevance of VAPA in host-pathogen interactions and antiviral drug development.

Beyond infectious disease, VAPA is also significant in neurodegeneration and metabolic regulation. Mutations or dysfunction in VAP proteins are linked to motor neuron diseases such as amyotrophic lateral sclerosis, and research using VAPA antibody has explored whether VAPA contributes to similar pathogenic mechanisms. In lipid metabolism, altered expression of VAPA affects cholesterol and sphingolipid distribution, linking it to metabolic disease and cardiovascular risk. These wide-ranging roles underscore the importance of studying VAPA in both normal physiology and pathology.

VAPA antibody is widely used in western blotting, immunofluorescence, and immunoprecipitation. Western blotting reveals its expression in tissues such as brain, liver, and muscle. Immunofluorescence confirms its localization to endoplasmic reticulum membranes, often colocalizing with markers such as calnexin. Immunoprecipitation with VAPA antibody enables identification of interacting proteins, revealing new partners in lipid transfer and signaling pathways. These applications make it a versatile reagent across molecular and cellular studies.

By supplying validated VAPA antibody reagents, NSJ Bioreagents supports research into membrane contact sites, lipid metabolism, and host-pathogen interactions. Detection of Vesicle-associated membrane protein-associated protein A provides a foundation for investigating fundamental processes in cell biology and disease mechanisms.

Application Notes

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

Immunogen

A synthesized peptide derived from human VAPA was used as the immunogen for the VAPA antibody. **Storage** Store the VAPA antibody at -20oC.