10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GABARAPL2 Antibody
Catalog # ASC11823

Specification

GABARAPL2 Antibody - Product Information

Application	**WB**
Primary Accession	P60520
Other Accession	NP_009216, 11345
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 13 kDa** **Observed: 13 kDa KDa**
Application Notes	**GABARAPL2 antibody can be used for detection of GABARAPL2 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry at 5 µg/mL. For Immunoflorescence start at 20 µg/mL.**

GABARAPL2 Antibody - Additional Information

Gene ID **11345**

Target/Specificity
GABARAPL2 antibody was raised against a 15 amino acid peptide near the carboxy terminus of human GABARAPL2.

The immunogen is located within the last 50 amino acids of GABARAPL2.

Reconstitution & Storage
GABARAPL2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
GABARAPL2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GABARAPL2 Antibody - Protein Information

Name GABARAPL2 (HGNC:13291)

Synonyms FLC3A, GEF2

Function
Ubiquitin-like modifier involved in intra-Golgi traffic (By similarity). Modulates intra-Golgi transport through coupling between NSF activity and SNAREs activation (By similarity). It first stimulates the ATPase activity of NSF which in turn stimulates the association with GOSR1 (By similarity). Involved in autophagy (PubMed:20418806, PubMed:<a href="http://www.uniprot.org/citations/23209295"

target="_blank">23209295). Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production (PubMed:20418806, PubMed:23209295). Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation (PubMed:20418806, PubMed:23209295).

Cellular Location
Cytoplasmic vesicle, autophagosome. Endoplasmic reticulum membrane. Golgi apparatus {ECO:0000250|UniProtKB:P60519}

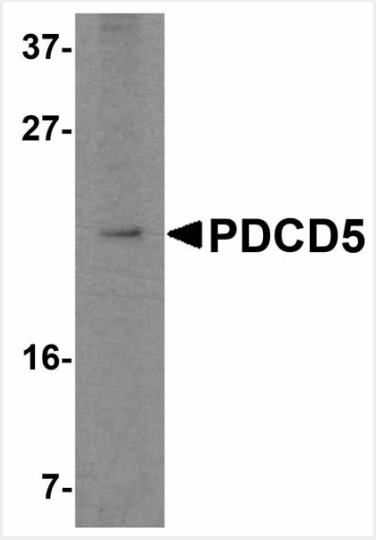
Tissue Location
Ubiquitous. Expressed at high levels in the brain, heart, prostate, ovary, spleen and skeletal muscle. Expressed at very low levels in lung, thymus and small intestine

GABARAPL2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

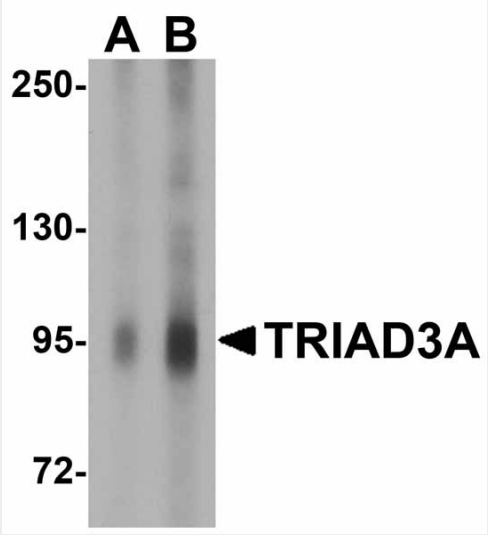
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GABARAPL2 Antibody - Images



Western blot analysis of PDCD5 in Jurkat cell lysate with PDCD5 antibody at 2.5 µg/mL.

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Western blot analysis of TRIAD3A in mouse heart tissue lysate with TRIAD3A antibody at (A) 1 and (B) 2 µg/mL.

GABARAPL2 Antibody - Background

Gamma-aminobutyric acid (GABA) is the main inhibitory transmitter by increasing a Cl-conductance that inhibits neuronal firing in the central nervous system (1). It has been shown to activate both ionotropic (GABAA) and metabotropic (GABAB) receptors as well as a third class of receptors called GABAC (2). GABARAPL2 (GABAA receptor-associated protein-like 2), also known as GATE16, was initially identified as a membrane transport modulator and is a mammalian ortholog to the autophagy protein ATG8 (3,4). It is thought that GABARAPL2 and other members of the ATG8 family act as scaffolds for assembly of the Unc-51 like kinase (ULK) complex in the formation of autophagosomes (5).

GABARAPL2 Antibody - References

Cherubini E, Gaiarsa JL, and Ben-Ari Y. GABA: an excitatory transmitter in early postnatal life. Trends Neurosci.1991; 14:515-19.
Dirkx R Jr, Thomas A, Li L, et al. Targeting of the 67 kDa isoform of glutamic acid decarboxylase to intracellular organelles is mediated by its interaction with the NH2-terminal region of the 65 kDa isoform of glutamic acid decarboxylase. J. Biol. Chem. 1995; 270:2241-6.
Sagiv Y, Legesse-Miller A, Porat A, et al. GATE-16, a membrane transport modulator, interacts with NSF and the Golgi v-SNARE GOS-28. EMBO J. 2000; 19:1494-504.
Paz Y, Elazar Z, and Fass D. Structure of GATE-16, membrane transport modulator and mammalian ortholog of autophagocytosis factor Aut7p. J. Biol. Chem. 2000; 275:25445-50.