

Datasheet for 600-101-HB2**VDAC/Porin Antibody****Overview**

Description:	Anti-VDAC/Porin (GOAT) Antibody - 600-101-HB2
Item No.:	600-101-HB2
Size:	100 µg
Applications:	ELISA, IF, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Goat

Product Details

Background:	VDAC/Porin Antibody recognizes VDAC (also known as Voltage-dependent anion-selective channel protein 1) which is an outer membrane mitochondrial protein. The VDAC proteins are ~30-33 kDa (some isoforms are larger). The VDAC proteins are thought to form aqueous channels, or pores, through which adenine nucleotides cross the outer mitochondrial membrane. VDACs have been implicated in the formation of the mitochondrial permeability transition pore complex in apoptotic cells. This complex, formed by VDAC, adenine nucleotide translocator (ANT), and cyclophilin D (CypD), is thought to allow the mitochondria to undergo metabolic uncoupling and irreversible morphologic changes that ultimately destroy the mitochondria during apoptosis. VDACs are highly expressed in heart, liver and skeletal muscle, where concentrations of mitochondria are at their highest. Diseases associated with VDAC1 include Cystic Fibrosis and Gerstmann-Straussler Disease. This antibody can be used as a loading control with whole cell lysates and total mitochondrial preparations. Anti-VDAC/Porin Antibody is useful for researchers interested in Apoptosis, cell survival and regulation, Mitochondrial Proteins, and Neuroscience Research.
Synonyms:	Goat anti-VDAC/Porin antibody, VDAC-1 Loading Control Antibody, Porin Loading Control Antibody, VDAC-1 Antibody, VDAC1 Antibody, POR1 Antibody, Porin Antibody, Voltage-dependent anion-selective channel protein 1, Outer mitochondrial membrane protein porin 1, Plasmalemmal porin, Porin 31HL
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	VDAC1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	VDAC/Porin Antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to N-terminal portion of Human VDAC1/Porin1.
Purity/Specificity:	Anti-VDAC/Porin Antibody is directed against human VDAC1/Porin1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest that this antibody would react with VDAC1/Porin1 including mouse, rat, bovine, pig, and rabbit sources based on 100% homology for the immunogen sequence. Such broad reactivity makes this antibody useful as an excellent loading control.
Relevant Links:	• 600-101-HB2 SDS • UniProtKB - P21796 • NCBI - NP_003365.1 • GeneID - 7416

Application Details

Tested Applications:	ELISA, IF, WB
Application Note:	VDAC/Porin Antibody has been tested for use in ELISA, western blot, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~30-33 kDa in size corresponding to VDAC/Porin by western blotting in the appropriate cell lysate or extract. Positive control used in WB: HeLa Whole Cell, Mouse Heart Lysate, or Rat Brain Tissue Lysate, and HeLa Cells in IF.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
IF:	5 µg/ml
IHC:	User Optimized
WB:	1 µg/ml

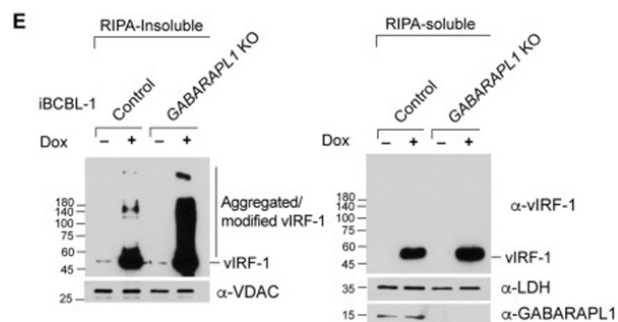
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.92 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

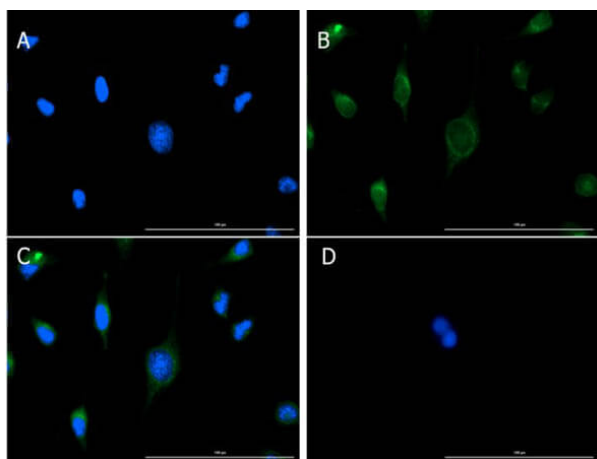
Shipping Condition:	Dry Ice
Storage Condition:	Store VDAC antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



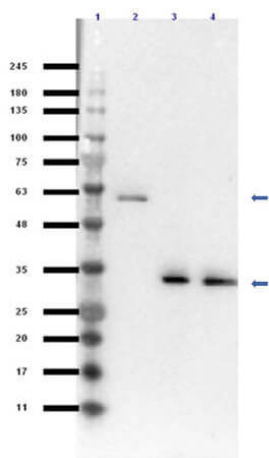
Western Blot

(E) Immunoblot analysis of the RIPA-soluble and insoluble fractions derived from control and GABARAPL1 KO iBCBL-1 cells left untreated or treated with Dox for 2 days. VDAC was used as a marker of the DRM fraction. Fig 8. PMID: 37459327



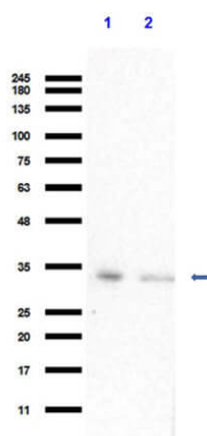
Immunofluorescence Microscopy

Immunofluorescence of Goat Anti-VDAC/Porin Antibody.
 Cell Line: HeLa Cells. Fixation: 100% MeOH.
 Permeabilization: 0.3% Triton X-100. Primary Antibody:
 Anti-VDAC1/Porin at 5µg/mL overnight at 2-8°C. Secondary
 Antibody: Donkey Anti-Goat IgG DyLight™488 (p/n 605-741-
 125) at 5µg/mL for 1hr at RT. Nuclear counter stain: DAPI.
 Location: Mitochondrion, Mitochondrion Outer Membrane,
 Nucleus. A). DAPI. B). VDAC/DyLight™488. C). Merge of A
 +B. D). Secondary Only.



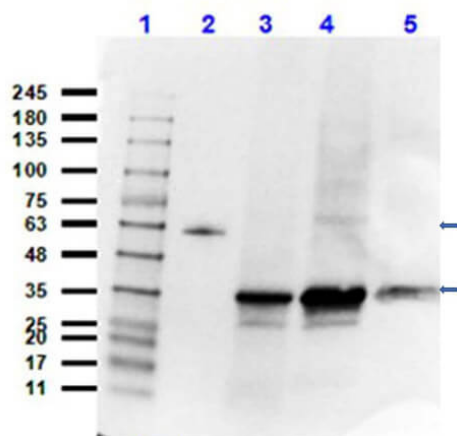
Western Blot

Western Blot of Goat Anti-VDAC/Porin Antibody. Lane 1:
 PreStained Molecular weight (p/n MB-210-0500). Lane 2:
 full length recombinant human VDAC1 GST-tag. Lane 3:
 HeLa Whole Cell Lysate (p/n W09-000-364). Lane 4: Rat
 Brain Lysate (p/n W12-000-T077). Load: 10µg. Primary
 Antibody: Anti-VDAC/Porin at 1µg/mL overnight at 2-8°C.
 Secondary Antibody: F(ab')₂ Anti-GOAT IgG (p/n 705-703-
 125) at 1:70,000 for 30min at RT. Blocking buffer: BlockOut
 (p/n MB-073). Expect: ~62kDa recombinant/~33kDa
 endogenous. Observed: ~60kDa recombinant/~33kDa
 endogenous.



Western Blot

Western Blot of Goat Anti-VDAC/Porin Antibody. Opal
 Prestained Molecular Weight (p/n MB-210-0500). Lane 1:
 Rat Brain Lysate (p/n W12-000-T077). Lane 2: Mouse Heart
 Lysate (p/n W10-000-T014). Load: 10µg. Primary Antibody:
 Anti-VDAC/Porin at 1µg/mL overnight at 2-8°C. Secondary
 Antibody: F(ab')₂ Anti-GOAT IgG (p/n 705-703-125) at
 1:70,000 for 30min at RT. Blocking buffer: Casein (p/n MB-
 082). Expect: 33kDa.



Western Blot

Western Blot of Goat Anti-VDAC/Porin Antibody. Lane 1: Opal Prestained Molecular Weight (p/n MB-210-0500). Lane 2: Recombinant Human VDAC1 full length ORF protein with GST-tag. Lane 3: HeLa Whole Cell Lysate (p/n W09-000-364). Lane 4: Mouse Heart Lysate (p/n W10-000-T014). Lane 5: Rat Brain Lysate (p/n W12-000-T077). Primary Antibody: Anti-VDAC/Porin at 1:1000 overnight at 2-8°C. Secondary Antibody: F(ab')₂ Donkey Anti-GOAT IgG HRP (p/n 705-703-125) at 1:40,000 for 30min at RT. Blocking buffer: BlockOut (p/n MB-073). Expect: ~62kDa recombinant/~33kDa endogenous. Observed: ~62kDa recombinant/~33kDa endogenous.

References

- Vo MT et al. The mitophagy receptor NIX induces vIRF-1 oligomerization and interaction with GABARAP1 for the promotion of HHV-8 reactivation-induced mitophagy. *PLoS Pathog.* (2023)

Disclaimer

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