

# Product Datasheet

## ZFYVE21 Antibody - Azide and BSA Free H00079038-B01P

Unit Size: 0.05 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**H00079038-B01P**

ZFYVE21 Antibody - Azide and BSA Free

**Product Information**

<b>Unit Size</b>	0.05 mg
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	No Preservative
<b>Isotype</b>	IgG
<b>Purity</b>	Protein A purified
<b>Buffer</b>	PBS (pH 7.4)

**Product Description**

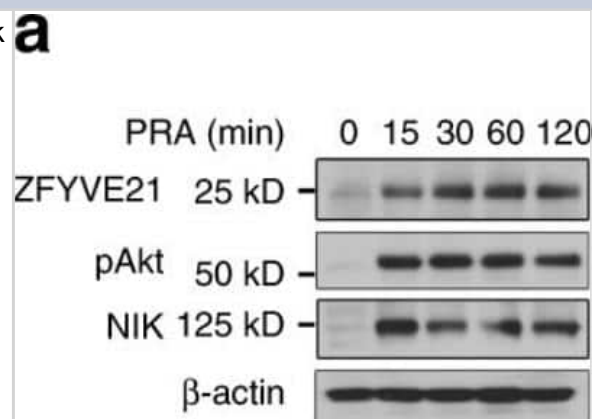
<b>Host</b>	Mouse
<b>Gene ID</b>	79038
<b>Gene Symbol</b>	ZFYVE21
<b>Species</b>	Human
<b>Specificity/Sensitivity</b>	ZFYVE21 - zinc finger, FYVE domain containing 21,
<b>Immunogen</b>	ZFYVE21 (NP_076976, 1 a.a. - 234 a.a.) full-length human protein. MSSEVSARRDAKKLVRSPLGLRMVPEHRAFGSPFGLLEPQWVPDKECRRRCM QCDAKFDLFLTRKHHCRRCGKCFCDRCCSQKVPLRRMCFVDPVRQCAECALV SLKEAEFYDKQLKVLLSGATFLVTFGNSEKPETMTCRLSNNQRYLFLDGDSDHY EIEIVHISTVQILTEGFPPGGGNARATGMFLQYTPGTEGVTQLKLTVVEDVTVG RRQAVAWLVAMHKAALKLYESRDQ
<b>Notes</b>	This product is produced by and distributed for Abnova, a company based in Taiwan.

**Product Application Details**

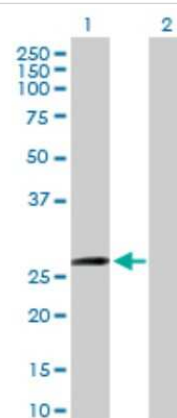
<b>Applications</b>	Western Blot
<b>Recommended Dilutions</b>	Western Blot 1:500
<b>Application Notes</b>	Antibody reactive against Recombinant Protein with GST tag on ELISA and Western Blot and also on transfected lysate in western blot. GST tag alone is used as a negative control.

**Images**

Western Blot: ZFYVE21 Antibody [H00079038-B01P] - Membrane attack complex-induced and endosome-dependent stabilization of ZFYVE21. Human umbilical vein endothelial cells (HUVECs) were treated with panel reactive antibody (PRA) sera (25% v/v in gelatin veronal buffer) (a). HUVECs were treated with MG132 (25uM). Image collected and cropped by CiteAb from the following publication ([nature.com/articles/s41467-019-10041-2](https://www.nature.com/articles/s41467-019-10041-2)), licensed under a CC-BY license.

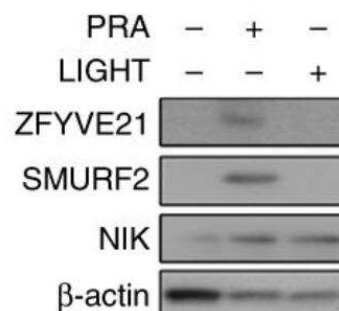


Western Blot: ZFYVE21 Antibody [H00079038-B01P] - Analysis of ZFYVE21 expression in transfected 293T cell line by ZFYVE21 polyclonal antibody. Lane 1: ZFYVE21 transfected lysate(25.74 KDa). Lane 2: Non-transfected lysate.



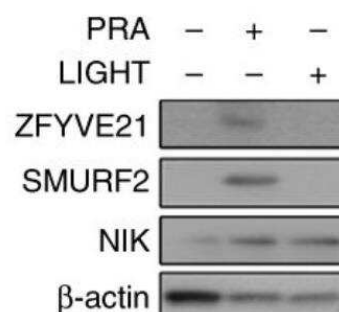
Western Blot: ZFYVE21 Antibody [H00079038-B01P] - Correlations of ZFYVE21 and complement in patient tissues. Western blots of human umbilical vein endothelial cells treated with either panel reactive antibody (30min, 25% v/v in gelatin veronal buffer) or LIGHT (12h, 50ng/mL in EGM2 media, a). Kidney biopsies from renal transplant patients (n=12) were stained as indicated. Image collected and cropped by CiteAb from the following publication ([nature.com/articles/s41467-019-10041-2](https://nature.com/articles/s41467-019-10041-2)), licensed under a CC-BY license.

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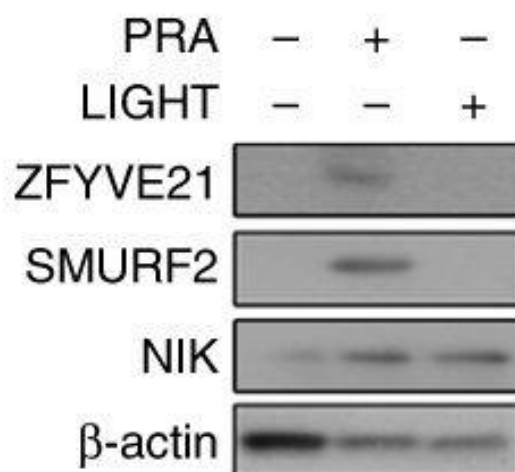
Western Blot: ZFYVE21 Antibody [H00079038-B01P] - Recombinant FLAG-tagged ZFYVE21 (1ug) and/or recombinant SMURF2 (1ug) protein was incubated for 30min at room temperature and analyzed by western blot. Image collected and cropped by CiteAb from the following publication ([nature.com/articles/s41467-019-10041-2](https://nature.com/articles/s41467-019-10041-2)), licensed under a CC-BY license.

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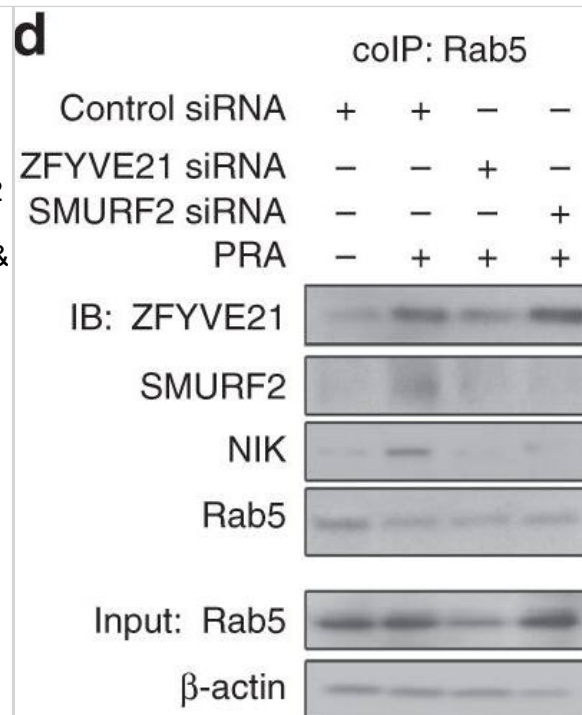


Western Blot: ZFYVE21 Antibody [H00079038-B01P] - Correlations of ZFYVE21 & complement in patient tissues. Western blots of human umbilical vein endothelial cells treated with either panel reactive antibody (30 min, 25% v/v in gelatin veronal buffer) or LIGHT (12 h, 50 ng/mL in EGM2 media, a). Kidney biopsies from renal transplant patients (n = 12) were stained as indicated (b). Synovial biopsies from osteoarthritis (n = 11), low-titer rheumatoid factor antibody rheumatoid arthritis (RF RA; n = 8), & high-titer RF RA (n = 8) were stained as indicated (c–e) & spatial correlations between ZFYVE21 or nuclear factor-inducing kinase (NIK) with endothelial cells (Ulex, f) & membrane attack complex (polyC9, g) were assessed using the computer software (scale bar: 200 μm). \*\*\*\*p < 1 × 10<sup>-5</sup>, Student's t test. CD45 abundance was assessed (h) & correlated with NIK staining (i) via blinded scoring from three independent observers. \*p < 0.05, \*\*p < 0.001. Western blotting was repeated three times. Analysis of variance statistical analyses were performed. Representative data shown \*p < 0.05, \*\*p < 0.001 Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31113953>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

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Western Blot: ZFYVE21 Antibody [H00079038-B01P] - SMURF2-dependent degradation of vesicular PTEN. PTEN co-immunoprecipitations (co-IPs) were performed on human umbilical vein endothelial cells (HUVECs) treated for 30 min with panel reactive antibody (PRA) sera & blotted as indicated (a). Rab5 co-IPs were performed on PRA-treated HUVECs transfected with control or SMURF2 siRNA (b). Western blot analysis of whole-cell lysates of HUVECs transiently transfected with SMURF2 WT, SMURF2 DN, control siRNA, & SMURF2 siRNA (c). HUVECs transfected with control, SMURF2, or ZFYVE21 siRNA were treated with PRA & Rab5 co-IPs were performed (d). Recombinant FLAG-tagged ZFYVE21 (1 µg) and/or recombinant SMURF2 (1 µg) protein was incubated for 30 min at room temperature & analyzed by western blot (e). In vitro kinase assays were performed using various E2 ubiquitin ligases with SMURF2 protein (1 µg) as the E3 ubiquitin ligase & PTEN (1 µg) as substrate (f). In vitro kinase assays were performed using isolated SMURF2 WT or SMURF2 DN as E3 ubiquitin ligases, Ubch5c as the E2 ubiquitin ligase, & PTEN as substrate as indicated (g). HUVECs were pretreated with MG132 for 4 h or chloroquine for 30 min prior to PRA treatment at the indicated times prior to Rab5 co-IP & western blot analysis (h). Western blot analyses were repeated two to four times. Confocal microscopic studies analyzed ≥4 cells per group & was repeated three times. In vitro kinase assays were repeated twice. Representative data shown Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31113953>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Francesca M Pramotton, Asra Abukar, Chantelle Hudson, James Dunbar, Andrew Potterton, Simone Tonnichia, Andrea Taddei, Edoardo Mazza, Costanza Giampietro DYRK1B inhibition exerts senolytic effects on endothelial cells and rescues endothelial dysfunctions. Mechanisms of ageing and development 2023-07-10 [PMID: 37301518]

Li, X;Jiang, Q;Song, G;Barkestani, MN;Wang, Q;Wang, S;Fan, M;Fang, C;Jiang, B;Johnson, J;Geirsson, A;Tellides, G;Pober, JS;Jane-Wit, D; A ZFYVE21-Rubicon-RNF34 signaling complex promotes endosome-associated inflammasome activity in endothelial cells Nature communications 2023-05-24 [PMID: 37225719] (Western Blot, Human)

Liu K Complement-Induced Post-Translational Regulation of Tgf-beta Signaling on Endothelial Cells Thesis 2021-01-01

Hampton-Smith RJ, Davenport BA, Nagarajan Y ZFYVE21 is a complement-induced Rab5 effector that activates non-canonical NF-Kappa B via phosphoinositide remodeling of endosomes Nat Commun 2019-05-21 [PMID: 31113953] (WB, Human)



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### **Products Related to H00079038-B01P**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97019-5mg	Mouse IgG Isotype Control
H00079038-P01-10ug	Recombinant Human ZFYVE21 GST (N-Term) Protein

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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