Product Datasheet

LPAR1/LPA1/EDG-2 Antibody - BSA Free
NBP1-03363

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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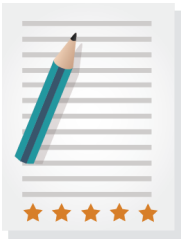
Updated 9/9/2025 v.20.1



NBP1-03363

LPAR1/LPA1/EDG-2 Antibody - BSA Free

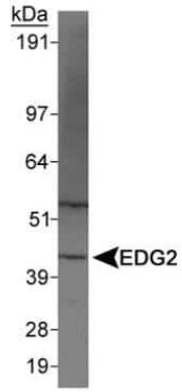
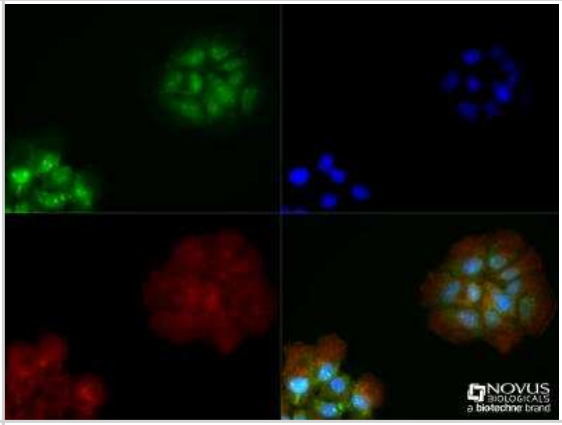
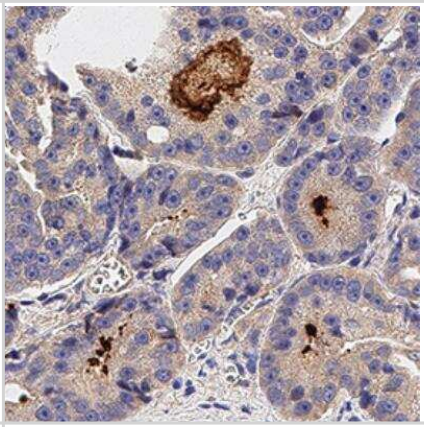
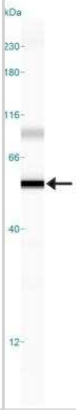
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	43 kDa

Product Description	
Description	Novus Biologicals Knockout (KO) Validated Rabbit LPAR1/LPA1/EDG-2 Antibody - BSA Free (NBP1-03363) is a polyclonal antibody validated for use in IHC, WB, Flow, ICC/IF and Simple Western. Anti-LPAR1/LPA1/EDG-2 Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	1902
Gene Symbol	LPAR1
Species	Human, Mouse, Rat, Chicken
Reactivity Notes	Predicted to react with sheep, and bovine based on 100% sequence homology. Positive staining in IHC-Fr/IF with 16 um cryostat sections of embryonic day 6 (E6) chicken brain was reported by a customer. Mouse reactivity reported in scientific literature (PMID: 24147068).
Immunogen	Synthetic peptide made to an internal portion of human EDG2 (within residues 200-300). [Swiss-Prot# Q92633]

Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 0.5 - 2.0 ug/ml, Simple Western 1:200, Immunohistochemistry 1:100-1:500, Immunocytochemistry/ Immunofluorescence 1:100-1:500, Immunohistochemistry-Paraffin 1:100 -1:500, Immunohistochemistry-Frozen 1:100-1:500

Application Notes	This EDG2 antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Frozen and Western Blot, where a band is seen approx. 43 kDa. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in A431 lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:200, apparent MW was 43 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

Western Blot: LPAR1/LPA1/EDG-2 Antibody [NBP1-03363] - Detection of EDG2 in A549 whole cell extracts using NBP1-03363. The band at ~41 kDa position represents the target protein EDG2, whereas, the band at ~55kDa may potentially be the post-translationally modified (glycosylated, palmitoylated or lipidated) form of this protein.	
Immunocytochemistry/Immunofluorescence: LPAR1/LPA1/EDG-2 Antibody [NBP1-03363] - A431 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-EDG2/LPAR1/LPA1 (NBP1-03363) at a 1:100 dilution overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin was used as a co-stain at a 1:1000 dilution and detected with and anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.	
Immunohistochemistry-Paraffin: LPAR1/LPA1/EDG-2 Antibody [NBP1-03363] - IHC analysis of formalin fixed paraffin-embedded (FFPE) human prostate cancer using LPAR1 antibody at 1:100 on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) using 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching with peroxide block. The sections were incubated with primary antibody for 30 minutes and Bond Polymer Refine Detection (Leica Biosystems) with DAB was used for signal development followed by counterstaining with hematoxylin. Whole slide scanning and capturing of representative images was performed using Aperio AT2 (Leica Biosystems). Staining was obseved in the scattered ducts. Staining was performed by Histowiz.	
Simple Western: LPAR1/LPA1/EDG-2 Antibody [NBP1-03363] - Simple Western lane view shows a specific band for EDG2 in 0.5 mg/ml of A431 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	

Publications

Lyu C, Ye Y, Lensing MM et al. Targeting Gi/o protein-coupled receptor signaling blocks HER2-induced breast cancer development and enhances HER2-targeted therapy JCI Insight 2021-09-22 [PMID: 34343132] (Western Blot, Rat)

Xiao GY, Tan X, Rodriguez BL et al. EMT activates exocytotic Rabs to coordinate invasion and immunosuppression in lung cancer Proceedings of the National Academy of Sciences of the United States of America 2023-07-11 [PMID: 37406091] (KO, Human)

Yonezu Y, Tanabe S, Misawa H, Muramatsu R Lysophosphatidic acid stimulates pericyte migration via LPA receptor 1 Biochemical and biophysical research communications 2022-06-08 [PMID: 35716596] (ICC/IF, FLOW, Mouse)

Khatiwada S, Delhon G, Chaulagain S, Rock DL The novel ORFV protein ORFV113 activates LPA-p38 signaling PLoS pathogens 2021-10-01 [PMID: 34614034] (ICC/IF)

Wu JX, Yuan XM, Wang Q et al. Rho/ROCK acts downstream of lysophosphatidic acid receptor 1 in modulating P2X3 receptor-mediated bone cancer pain in rats. Mol Pain. 2016-04-20 [PMID: 27094551] (IF/IHC, Rat)

Wei JS, Johansson P, Chen L et al. Massively Parallel Sequencing Reveals an Accumulation of De Novo Mutations and an Activating Mutation of LPAR1 in a Patient with Metastatic Neuroblastoma. PLoS One. 2013-10-16 [PMID: 24147068] (WB, Mouse)

Park EY, Kazlauskas A. Primary human endothelial cells secrete agents that reduce responsiveness to lysophosphatidic acid (LPA) Biosci Rep 2012-08-01 [PMID: 22639801] (WB, Rat)

Procedures

Western Blot protocol for LPAR1/LPA1/EDG-2 Antibody (NBP1-03363)
LPAR1/LPA1/EDG-2 Antibody:
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute anti-EDG-2 primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence protocol for LPAR1/LPA1/EDG-2 Antibody (NBP1-03363)
LPAR1/LPA1/EDG-2 Antibody:
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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Products Related to NBP1-03363

NBL1-12643	LPAR1/LPA1/EDG-2 Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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