

EDG4 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6140a**Specification**

EDG4 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q9HBW0
Other Accession	Q95KH4
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	3-32

EDG4 Antibody (N-term) - Additional Information**Gene ID** 9170**Other Names**

Lysophosphatidic acid receptor 2, LPA receptor 2, LPA-2, Lysophosphatidic acid receptor Edg-4, LPAR2, EDG4, LPA2

Target/Specificity

This EDG4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 3-32 amino acids from the N-terminal region of human EDG4.

Dilution

WB~~1:1000

IHC-P~~1:50~100

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

EDG4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

EDG4 Antibody (N-term) - Protein Information**Name** LPAR2 ([HGNC:3168](#))

Synonyms EDG4, LPA2

Function Receptor for lysophosphatidic acid (LPA), a mediator of diverse cellular activities. Seems to be coupled to the G(i)/G(o), G(12)/G(13), and G(q) families of heteromeric G proteins. Plays a key role in phospholipase C-beta (PLC-beta) signaling pathway. Stimulates phospholipase C (PLC) activity in a manner that is independent of RALA activation.

Cellular Location

Cell surface. Cell membrane; Multi-pass membrane protein. Note=Prior to LPA treatment found predominantly at the cell surface but in the presence of LPA colocalizes with RALA in the endocytic vesicles

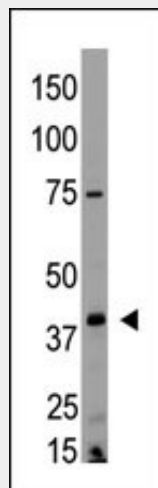
Tissue Location

Expressed most abundantly in testes and peripheral blood leukocytes with less expression in pancreas, spleen, thymus and prostate. Little or no expression in heart, brain, placenta, lung, liver, skeletal muscle, kidney, ovary, small intestine, or colon

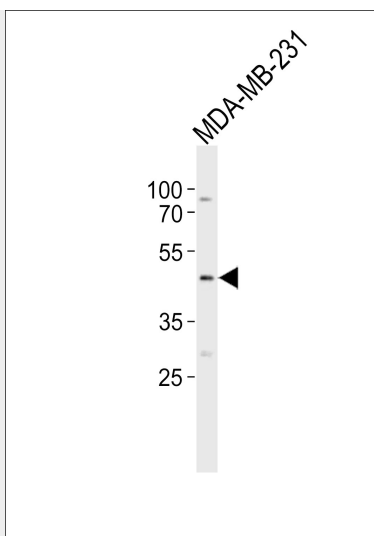
EDG4 Antibody (N-term) - Protocols

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

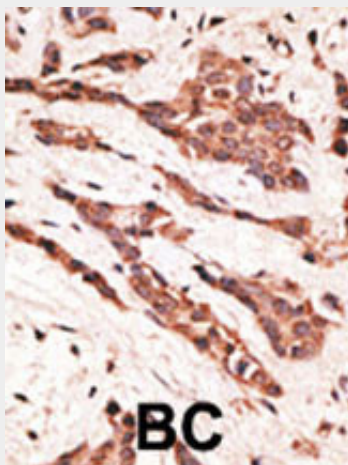
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

EDG4 Antibody (N-term) - Images

The anti-EDG4 N-term Antibody (Cat.#AP6140a) is used in Western blot to detect EDG4 in HL60 lysate.



Western blot analysis of lysate from MDA-MB-231 cell line, using EDG4 Antibody (N18)(Cat. #AP6140a). AP6140a was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 35ug.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

EDG4 Antibody (N-term) - Background

EDG4 is a member of family I of the G protein-coupled receptors, as well as the EDG family of proteins. This protein functions as a lysophosphatidic acid (LPA) receptor and contributes to Ca^{2+} mobilization, a critical cellular response to LPA in cells, through association with G_i and G_q proteins.

EDG4 Antibody (N-term) - References

- Hu, Y.L., et al., J. Natl. Cancer Inst. 95(10):733-740 (2003).
- Fujita, T., et al., Cancer Lett. 192(2):161-169 (2003).
- Contos, J.J., et al., Genomics 64(2):155-169 (2000).
- Zheng, Y., et al., FASEB J. 14(15):2387-2389 (2000).
- Young, K.W., et al., J. Biol. Chem. 275(49):38532-38539 (2000).

EDG4 Antibody (N-term) - Citations

- [Evaluation of pancreatic cancer cell migration with multiple parameters in vitro by using an optical real-time cell mobility assay device.](#)

- [Lysophosphatidic acid increases proximal tubule cell secretion of profibrotic cytokines PDGF-B and CTGF through LPA2- and G \$\alpha\$ -mediated Rho and \$\beta\$ 1 integrin-dependent activation of TGF- \$\beta\$ 2.](#)
- [Lysophosphatidic acid receptor activation affects the C13N1 microglia cell line proteome leading to alterations in glycolysis, motility, and cytoskeletal architecture.](#)
- [Lysophosphatidic acid induces Ca²⁺ mobilization and c-Myc expression in mouse embryonic stem cells via the phospholipase C pathway.](#)
- [Nm23-H1 suppresses tumor cell motility by down-regulating the lysophosphatidic acid receptor EDG2.](#)