

**Mouse Anti-LPAR1/EDG2 [B10]: MC0494, MC0494RTU7**

**Intended Use:** For Research Use Only

**Description:** The EDG (endothelial differentiation gene) family of GPC-receptors consists of eight family members (EDG1-8) that bind lysophospholipid (LPL) mediators either sphingosine-1-phosphate (SPP) or lysophosphatidic acid (LPA). EDG1, EDG3, EDG5 and EDG8 bind SPP with high affinity and EDG6 with low affinity. EDG2, EDG4 and EDG7 bind LPA preferentially. The EDG receptors couple to multiple G proteins to signal through Ras, MAP kinase, Rho, Phospholipase C or other tyrosine kinases, which lead to cell survival, growth, migration and differentiation. EDG2 or LPAR1, expressed in brain especially in white matter tract regions, interacts with RALA, ADRBK1 etc. In the absence of LPA, it can be found predominantly at the cell surface; whereas in the presence of LPA, it co-localizes with RALA in the endocytic vesicles. It is well established that platelets, certain inflammatory cells, nerve cells, endothelial cells, cancerous cells etc. are triggered to release LPA in autocrine/paracrine fashion with the induction of diverse biologic effects.

**Specifications:**

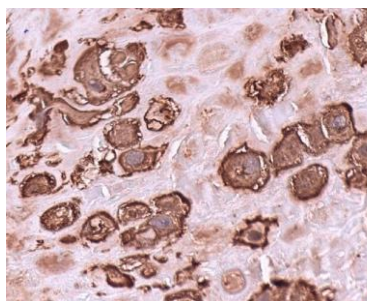
Clone: B9  
 Source: Mouse  
 Isotype: IgG2a/k  
 Reactivity: Human, mouse, rat  
 Immunogen: Epitope aa 186-207 within an extracellular domain of human EDG-2  
 Localization: Membrane, cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, IF, IP, WB  
 Package:

Description	Catalog No.	Size
LPAR1/EDG2 Concentrated	MC0494	1 ml
LPAR1/EDG2 Prediluted	MC0494RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Prostate cancer, uterine cervix, placenta  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human placenta stained with anti-LPAR1 using DAB showing staining of subset of decidual cell

**References:**

1. Atx regulates skeletal muscle regeneration via LPAR1 and promotes hypertrophy. Rashmi Ray, et al. Cell Rep. Mar 2;34(9):108809, 2021.
2. LPA1 Mediates Antidepressant-Induced ERK1/2 Signaling and Protection from Oxidative Stress in Glial Cells. Maria C Olianias, et al., J Pharmacol Exp Ther. 2016 Nov;359(2):340-353, 2016.

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