

**Anti-EDG2 Antibody**  
**Rabbit polyclonal antibody to EDG2**  
**Catalog # AP60681****Specification**

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**Anti-EDG2 Antibody - Product Information**

Application	WB, IF/IC
Primary Accession	<a href="#">O92633</a>
Other Accession	<a href="#">P61793</a>
Reactivity	Human, Mouse, Rat, Bovine, SARS
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41109

**Anti-EDG2 Antibody - Additional Information****Gene ID** 1902**Other Names**

EDG2; LPA1; Lysophosphatidic acid receptor 1; LPA receptor 1; LPA-1; Lysophosphatidic acid receptor Edg-2

**Target/Specificity**

Recognizes endogenous levels of EDG2 protein.

**Dilution**WB~~WB (1/500 - 1/1000), IF/IC (1/100 - 1/500)  
IF/IC~~N/A**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-EDG2 Antibody - Protein Information****Name** LPAR1**Synonyms** EDG2, LPA1**Function**

Receptor for lysophosphatidic acid (LPA) (PubMed:&lt;a href="http://www.uniprot.org/citations/19306925" target="\_blank"&gt;19306925&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/25025571" target="\_blank"&gt;25025571&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/26091040" target="\_blank"&gt;26091040&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/9070858" target="\_blank"&gt;9070858&lt;/a&gt;). Plays a role in

the reorganization of the actin cytoskeleton, cell migration, differentiation and proliferation, and thereby contributes to the responses to tissue damage and infectious agents. Activates downstream signaling cascades via the G(i)/G(o), G(12)/G(13), and G(q) families of heteromeric G proteins. Signaling inhibits adenylyl cyclase activity and decreases cellular cAMP levels (PubMed:<a href="http://www.uniprot.org/citations/26091040" target="\_blank">26091040</a>). Signaling triggers an increase of cytoplasmic Ca(2+) levels (PubMed:<a href="http://www.uniprot.org/citations/19656035" target="\_blank">19656035</a>, PubMed:<a href="http://www.uniprot.org/citations/19733258" target="\_blank">19733258</a>, PubMed:<a href="http://www.uniprot.org/citations/26091040" target="\_blank">26091040</a>). Activates RALA; this leads to the activation of phospholipase C (PLC) and the formation of inositol 1,4,5-trisphosphate (PubMed:<a href="http://www.uniprot.org/citations/19306925" target="\_blank">19306925</a>). Signaling mediates activation of down-stream MAP kinases (By similarity). Contributes to the regulation of cell shape. Promotes Rho-dependent reorganization of the actin cytoskeleton in neuronal cells and neurite retraction (PubMed:<a href="http://www.uniprot.org/citations/26091040" target="\_blank">26091040</a>). Promotes the activation of Rho and the formation of actin stress fibers (PubMed:<a href="http://www.uniprot.org/citations/26091040" target="\_blank">26091040</a>). Promotes formation of lamellipodia at the leading edge of migrating cells via activation of RAC1 (By similarity). Through its function as LPA receptor, plays a role in chemotaxis and cell migration, including responses to injury and wounding (PubMed:<a href="http://www.uniprot.org/citations/18066075" target="\_blank">18066075</a>, PubMed:<a href="http://www.uniprot.org/citations/19656035" target="\_blank">19656035</a>, PubMed:<a href="http://www.uniprot.org/citations/19733258" target="\_blank">19733258</a>). Plays a role in triggering inflammation in response to bacterial lipopolysaccharide (LPS) via its interaction with CD14. Promotes cell proliferation in response to LPA (By similarity). Inhibits the intracellular ciliogenesis pathway in response to LPA and through AKT1 activation (PubMed:<a href="http://www.uniprot.org/citations/31204173" target="\_blank">31204173</a>). Required for normal skeleton development. May play a role in osteoblast differentiation. Required for normal brain development. Required for normal proliferation, survival and maturation of newly formed neurons in the adult dentate gyrus. Plays a role in pain perception and in the initiation of neuropathic pain (By similarity).

### Cellular Location

Cell surface. Cell membrane; Multi-pass membrane protein. Endosome Note=Prior to LPA treatment found predominantly at the cell surface Internalized after LPA treatment. Colocalizes with RALA in endocytic vesicles after LPA treatment.

### Tissue Location

Expressed in many adult organs, including brain, heart, colon, small intestine, placenta, prostate, ovary, pancreas, testes, spleen, skeletal muscle, and kidney. Little or no expression in liver, lung, thymus, or peripheral blood leukocytes (PubMed:9070858) Detected in lung fibroblasts from bronchoalveolar fluid from patients with idiopathic pulmonary fibrosis (PubMed:18066075). Detected in bone marrow-derived mesenchymal stem cells (PubMed:19733258)

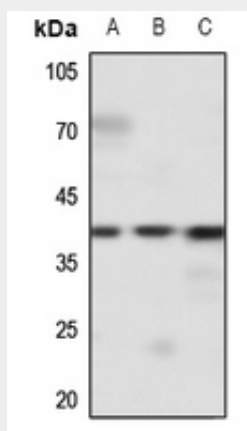
## Anti-EDG2 Antibody - Protocols

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

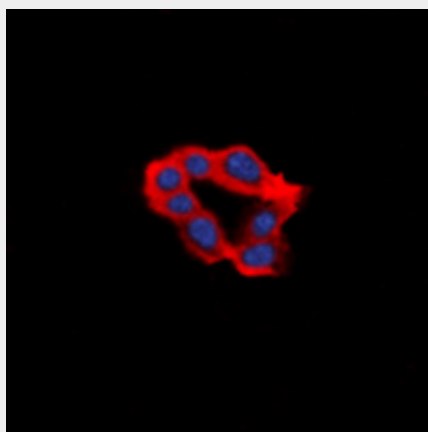
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

## Anti-EDG2 Antibody - Images



Western blot analysis of EDG2 expression in mouse brain (A), mouse heart (B), mouse spleen (C) whole cell lysates.



Immunofluorescent analysis of EDG2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

## Anti-EDG2 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human EDG2. The exact sequence is proprietary.