



3050 Spruce Street  
Saint Louis, Missouri 63103 USA  
Telephone 800-325-5832 • (314) 771-5765  
Fax (314) 286-7828  
email: techserv@sial.com  
sigma-aldrich.com

## Product Information

### Monoclonal Anti-LPA<sub>2</sub>, N-Terminal Clone AS62

Purified Mouse Immunoglobulin

Product Number **E 3141**

#### Product Description

Monoclonal Anti-LPA<sub>2</sub>, N-Terminal (mouse IgG isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a Balb/c mouse immunized with a unique peptide corresponding to an N-terminal portion of human LPA<sub>2</sub>, also referred to as endothelial differentiation gene-4 (EDG-4).

Monoclonal Anti-LPA<sub>2</sub>, N-Terminal recognizes LPA<sub>2</sub> (EDG-4), N-Terminal protein from human tissue by immunoblotting (45 kDa). The antibody does not recognize EDG-2, 3 or 5.

LPA<sub>2</sub>, also known as EDG-4, belongs to a family of G-protein coupled receptors whose ligands are lysophospholipids. There are eight known members of the EDG receptor family and they are implicated in mediating growth-related effects such as induction of cellular proliferation, alterations in differentiation and survival, and suppression of apoptosis. They also evoke cellular effector functions that are dependent on cytoskeletal responses such as contraction, secretion, adhesion and chemotaxis. EDG receptors are developmentally regulated and differ in tissue distribution. They couple to multiple types of G proteins to signal through ras and MAP kinase, rho, phospholipase C, and several protein tyrosine kinases. EDG-4 is expressed in testes, ovarian tumor, and leukocyte-containing tissues.

#### Reagent

The antibody is supplied as purified mouse immunoglobulin at 1.0 mg/ml in phosphate buffered saline, pH 7.2-7.4, with 0.08% sodium azide.

#### Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling

#### Storage/Stability

Store at -20 °C. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

The recommended working antibody dilution is at least 1:1,000 (1 µg/ml) for immunoblotting using samples from human breast carcinoma or ovarian cancer cells or human T lymphoblasts.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

#### References

1. Goetzl, E.J., and An, S., Diversity of cellular receptors and functions for the lysophospholipid growth factors lysophosphatidic acid and sphingosine 1-phosphate. *FASEB J.*, **12**, 1589 (1998).
2. An, S., et al., Signaling mechanisms and molecular characteristics of G protein-coupled receptors for lysophosphatidic acid and sphingosine 1-phosphate. *J. Cell. Biochem. Suppl.*, **30-31**, 147 (1998).

Kaa/Mje 12/04

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.