3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-PTPRA
produced in rabbit, affinity isolated antibody

Catalog Number: **SAB4200319**

Product Description
Anti-PTPRA is produced in rabbit using as immunogen a synthetic peptide corresponding to an internal region of human PTPRA (Gene ID: 5786), conjugated to KLH. The corresponding sequence is identical in mouse and differs by one amino acid in rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-PTPRA recognizes human and mouse PTPRA. The antibody may be used in several immunochemical techniques including immunoblotting (~ 90kDa) and immunofluorescence. Detection of the PTPRA band by immunoblotting is specifically inhibited by the immunizing peptide.

PTPRA (also known as PTPase-alpha, LRP, PTPA and PTPRL2) is a transmembrane PTP with a relatively short, highly glycosylated extracellular domain, a transmembrane domain, and a tandem phosphatase domain. The amino-terminal domain predominantly mediates catalytic activity, whereas the carboxy-terminal domain serves as a regulatory subunit.[1] PTPRA undergoes proteolytic cleavage and can be detected as full-length unglycosylated (~100 kDa), or glycosylated (~130 kDa), or as an N-terminal truncated form (~66 kDa).[2] PTPRA has been implicated in a number of signaling pathways, including insulin receptor signaling, cellular transformation and cell spreading and migration.[2] The regulation of these cellular process are mainly achieved via activation of c-Src and Fyn kinases. Expression of PTPRA was shown to be associated with human breast cancer [3] and with late stage colon carcinomas.[4]

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer
This product is for R&D use only, not for drug, household or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: a working antibody concentration of 0.25- 0.5 µg/mL is recommended using lysates of NIH-3T3 or PC12 cells.

Immunofluorescence: a working concentration of 5-10 µg/mL is recommended using paraformaldehyde fixed HUVEC cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References
1. Krueger, N.X., et al., *EMBO J.*, **9**, 3241-3252 (1990).
2. Gil-Henn, H., et al., *J. Biol. Chem.*, **276**, 31772-31779 (2001).
3. Ardini, E., et al., *Oncogene.,* **19**, 4979- 4987 (2000).
4. Tabiti, K., et al., *Cancer Lett.,* **93**, 239-248 (1995).

SG,RC,KAA,PHC 07/11-1