Product Information Sheet

Polyclonal Anti-Alkaline Phosphatase, ***ALPL***

Catalogue No. PA1004

Lot No. 03A01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

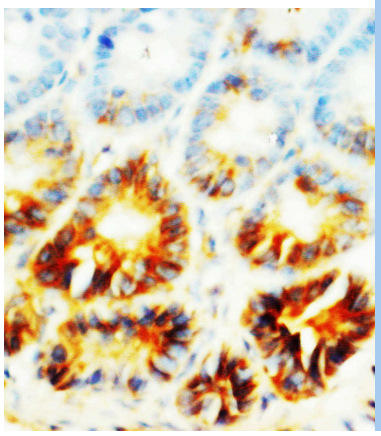
Human, mouse, rat.

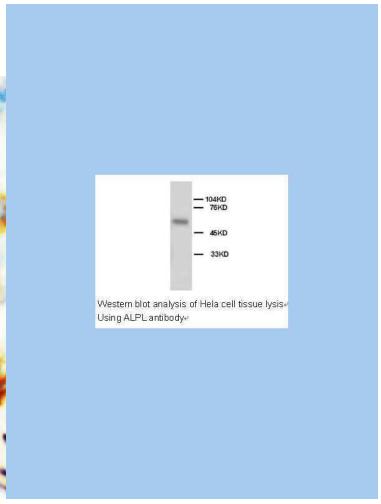
No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)





Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of human ALPL, different from the related rat and mouse sequence by two amino acids.

Purity

Immunogen affinity purified.

Application

Western blot

At 1-2µg/ml with the appropriate system to detect ALPL in cells and tissues.

Immunohistochemistry(P)

At 1-2µg/ml to detect ALPL in formalin fixed and paraffin embedded tissues. Boiling the sections is required.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for longer time.

To reorder contact us at:

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BACKGROUND

Alkaline phosphatase (ALPL) removes phosphate groups from the 5' end of DNA and RNA, and from proteins, at high pH. Most mammals have 4 different isozymes: placental, placental like, intestinal and non tissue specific (found in liver, kidney and bone). Tissues with particularly high concentrations of ALP include the liver, bile ducts, placenta, and bone. ALPL is the alkaline phosphatase of skin fibroblasts ,the tissue-nonspecific type, and that it is active toward millimolar concentrations of the putative natural substrates phosphoethanolamine (PEA) and pyridoxal-5-prime-phosphate (PLP). ALPL gene exists in single copy in the haploid genome and is composed of 12 exons distributed over more than 50 kb.Damaged or diseased tissue releases enzymes into the blood, so serum ALP measurements can be abnormal in many conditions, including bone disease and liver disease.

REFERENCE

1.Fedde, K. N.; Whyte, M. P. : Alkaline phosphatase (tissue-nonspecific isoenzyme) is a phosphoethanolamine and pyridoxal-5-prime-phosphate ectophosphatase: normal and hypophosphatasia fibroblast study. *Am. J. Hum. Genet.* 47: 767-775, 1990.

2.Weiss, M. J.; Cole, D. E. C.; Ray, K.; Whyte, M. P.; Lafferty, M. A.; Mulivor, R. A.; Harris, H. : A missense mutation in the human liver/bone/kidney alkaline phosphatase gene causing a lethal form of hypophosphatasia. *Proc. Nat. Acad. Sci.* 85: 7666-7669, 1988.