

DESCRIPTION

Species Reactivity	Human
Specificity	Detects recombinant human Alkaline Phosphatase Placental Type/ALPP and recombinant human Alkaline Phosphatase Intestinal Type/ALPI in direct ELISAs. Detects human ALPP and ALPI but not Alkaline Phosphatase Liver Type/ALPL in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Alkaline Phosphatase/ALPP Ile23-Asp506 Accession # P05187
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ALPP (Alkaline phosphatase placental type; also SEAP, PALP-1 and ALP) is a 66-68 kDa glycoprotein member of the alkaline phosphatase family of molecules. It is principally expressed by 2nd and 3rd trimester syncytiotrophoblasts and tumor cells, and represents one of four alkaline phosphatase isozymes. Experimentally, it cleaves phosphate monoesters into alcohol and phosphate. Human ALPP is synthesized as a 535 amino acid (aa) preproprecursor. It contains a 22 aa signal sequence, a 484 mature region (aa 23-506), and a 29 aa C-terminal propeptide that is cleaved to generate a GPI linkage at Asp506. The ALPP gene is highly allelic and may generate three potential splice variants that involve the signal sequence. The ALPP enzyme utilizes one Mg and two Zn ions, and functions as either a homodimer, or a heterodimer with the related Intestinal (ALPI) and Germ cell (GCAP) family members on the cell surface. ALPP is reported to oligomerize under certain conditions. Over aa 23-506, human ALPP shares 96% and 77% aa identity with chimpanzee ALPP and mouse embryonic-type alkaline phosphatase, respectively. It also shares 88% and 98% aa identity with IAP and GCAP, respectively. Over aa 23-506, human ALPP shares 86% aa identity with human ALPI.

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