

DESCRIPTION

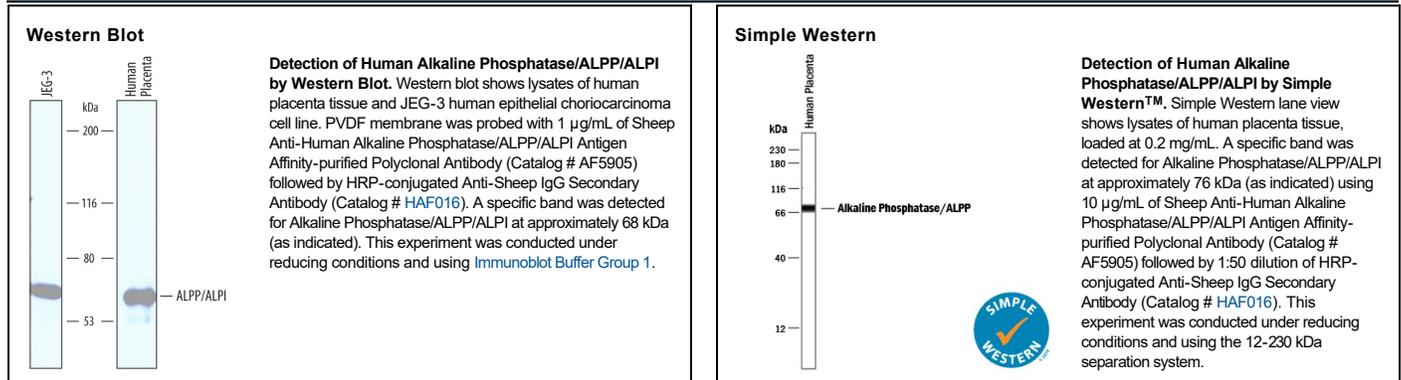
Species Reactivity	Human
Specificity	Detects recombinant human Alkaline Phosphatase Placental Type/ALPP and recombinant human Alkaline Phosphatase Intestinal Type/ALPI in direct ELISAs. Detects human ALPP and ALPI but not Alkaline Phosphatase Liver Type/ALPL in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Alkaline Phosphatase/ALPP Ile23-Asp506 Accession # P05187
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with recombinant human Alkaline Phosphatase/ALPP, see our available Western blot detection antibodies
Simple Western	10 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.