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ALPL
Native Human Alkaline Phosphatase, Liver, Partially Purified

Catalog No.	CSI10372A CSI10372B	**Quantity:**	10 U 100 U

Alternate Names: Alkaline phosphatase, tissue-nonspecific isozyme, AP-TNAP, TNS-ALP, TNSALP, Phosphocreatine phosphatase

Description: Native Human Alkaline Phosphatase (ALP) is a hydrolase enzyme responsible for removing phosphate groups in the 5- and 3- positions from many types of molecules, including nucleotides, proteins and alkaloids. In most mammals there are four different isozymes: placental (ALPP), germ cell (ALPG), intestinal (ALPI) and tissue non-specific (liver/bone/kidney) (ALPL/TNAP). In the Human, ALP is particularly concentrated in liver, bile duct, kidney, bone, (ALPL) and the placenta (ALPP). Elevated liver form is often due to liver pathologies, and likewise elevation of the bone form often indicates a bone pathology such as Paget's disease. However, elevated ALP can be due to non-specific causes and does not always indicate serious disease. Nevertheless alkaline phosphatase is a very useful serum marker, with wide applications from diagnosing hepatoma to predicting mortality in dialysis patients.

UniProt ID: P05186

Adult Reference Range: 53-128 U/L (male, age 20-50)
42-98 U/L (female, age 20-50)

Source: Human Liver

Purity: Partially purified liquid formulation containing 10mM TRIS, 1mM $MgCl_2$, 5um $MnCl_2$, 5uM $ZnCl_2$ and 50uM P-5-P, 0.09% NaN_3

Biological Activity: 49.1 IU/mL @ 37°C by Roche, Cobas c501

Unit Definition: One unit will convert one micromole of p-nitrophenyl-phosphate to p-nitrophenol phosphate per minute at 37 °C in the presence of AMP (2-amino-2-methyl-1-propanol) at pH 10.35.

Storage & Stability: Upon receipt, store at -80°C unopened for up to 1 year. Upon initial thawing, prepare aliquots for storage at -80°C.

Statement: Negative or non-reactive at the donor level for HIV 1 and 2 (antibodies or NAT), HCV (antibodies or NAT), and HBsAg. However, because no test method can offer complete assurance that infectious agents are absent, this material should be handled at the Biosafety Level 2 (BSL 2) as recommended for any potentially infectious human serum or blood specimen in the CDC/NIH manual "Biosafety in Microbiological and Biomedical Laboratories", 2009.

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