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ALPI
Native Calf Alkaline Phosphatase

Catalog No.	CSI10369A CSI10369B	**Quantity:**	10 KU 50 KU

Alternate Names: Intestinal-type alkaline phosphatase, IAP, Intestinal alkaline phosphatase

Description: Calf intestinal 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 humans, Alkaline phosphatase (ALP) is present in all tissues throughout the entire body, but is particularly concentrated in liver, bile duct, kidney, bone, and the placenta. The optimal pH for calf intestine Alkaline phosphatase (ALP) enzyme activity is pH 10 in standard conditions.

Alkaline phosphatase (ALP) is used in the detection of hepatobiliary disease, bone disease and biliary tree and intrahepatic obstruction. Alkaline Phosphatase (ALP) levels can be used to monitor the effectiveness of treatment for Paget's disease.

UniProt ID: P19111

Gene ID: 280993

Source: Calf Intestine

Molecular Weight: Consists of two identical 65 kDa subunits

Formulation: Lyophilized from a solution containing Tris-HCl and $MgCl_2$, pH 8.3

Protein: ≥ 0.4 mg protein/mg (Coomassie)

Biological Activity: Using the Siemens Dimension™ Clinical Chemistry System,
One unit will convert one micromole of p-nitrophenyl phosphate to p-nitrophenol and phosphate per minute at 37°C in the presence of AMP (2-amino-2-methyl-1-propanol) at pH 10.35.

Specific Activity: ≥ 280 U/mg, typically ≥1000 U/mg protein

Contaminants: Ammonia: ≤ 1.0 micrmole/mg

Reconstitution: Use Tris-buffered saline (TBS) containing 1 mM $MgCl_2$, 0.2 mM $ZnCl_2$,1% BSA, pH 8.0 to prepare a concentration of 1-10 mg/ml. Store aliquots of the stock solution at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

Storage & Stability: Store lyophilized protein at -20°C to -80°C. Stable for at least 1 year.

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Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com