

# ALKALINE PHOSPHATASE (ALP)

EC Number	3.1.3.1
Alternative Names	Alkaline phosphomonoesterase; Phosphomonoesterase; Glycerophosphatase
Assay Principle	p-Nitrophenyl phosphate + H <sub>2</sub> O $\xrightarrow{\text{Alkaline phosphatase}}$ p-Nitrophenyl + H <sub>2</sub> PO <sub>4</sub>
Unit Definition	Glycine: That amount of enzyme causing the hydrolysis of one micromole of p-Nitrophenyl phosphate per minute at 25°C and pH 9.6 (glycine buffer). DEA: That amount of enzyme causing the hydrolysis of one micromole of p-Nitrophenyl phosphate per minute at 37°C and pH 9.8 (diethanolamine buffer).

## How can Alkaline Phosphatase be used?

Alkaline Phosphatase (ALP) is commonly used as a label in immunoassays such as ELISA, and in blotting and histochemistry.

Once conjugated to antibodies, antigens, or streptavidin, its low backgrounds and linear reaction rate enable increased sensitivity over extended incubation times. It can be used with a variety of substrates producing precipitated or soluble chromogens, or with chemiluminescent and fluorogenic substrates for enhanced sensitivity.



## Why choose BBI for your supply?

BBI Solutions (BBI) is the world's leading producer of bovine ALP and has supplied the diagnostics industry with the widest range and highest specific activity material for over 25 years.

Our raw materials selection, harvesting protocol and production procedures have been optimised to ensure that we achieve the highest possible specific activity and batch-to-batch consistency. We have also developed a series of preparations to provide a range of specific activities to suit a wide range of applications.

Our many commercial partners have come to rely on ALP from BBI for proven performance in their immunoassay systems.

## Key Benefits

### + HIGHEST ACTIVITY ALP ON THE MARKET

>2000 glycine U/mg protein and >6000 DEA U/mg protein, for some batches we achieve >2300 and >7000 so you can be confident in the performance of your assay

### + HIGH STABILITY

Less than 10% activity lost over 48 months ensuring reliable and consistent performance of your assay

### + PROVEN PERFORMANCE

Benchmarking shows that BBI continues to deliver the highest activity and purity ALP on the market

### + MULTIPLE GRADES

We offer various ALP products with defined specific activities, allowing you to select an enzyme which best suits your application

### + BULK EXTRACTION & PURIFICATION CAPABILITY

Our optimised large scale manufacturing processes produce high volumes of all grades enabling us to fulfil your order efficiently

Order your evaluation sample today

Product	Code	Activity	Source	Applications
Alkaline Phosphatase	ALPI12G	>2000 Glycine U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPI11G	>1800 Glycine U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPI10G	>1600 Glycine U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPI8G	>1400 Glycine U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPIXG	>1000 Glycine U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPIXT	>2000 DEA U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPI3	>20 U/mg material	Bovine intestinal mucosa	Immunoassay
	ALPI6G	>700 Glycine U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPI8T	>2600 DEA U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPIS1	>1.5 U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPIW1	>2 U/mg protein	Bovine intestinal mucosa	Immunoassay
	ALPIW2	<15 U/mg protein	Bovine intestinal mucosa	Immunoassay

**Stability**

Stable for 10 years when stored in accordance with storage conditions excluding:  
 ALPI2 & ALPI3 – Stable for 4 years  
 ALPI2F – Stable for 2 years  
 ALPI8A, ALPI8F, ALPI8T, ALPIXT – Stable for 6 months

**FAQs**

**HOW IS ALP PRODUCED?**

The enzyme is extracted from bovine intestine then purified using multiple precipitation, fractionation, chromatography and filtration steps.

**WHAT IS THE MOST POPULAR GRADE TO USE AS A MARKER ENZYME IN ELISA?**

ALPI12G which has the highest specific activity currently available.

**HOW SHOULD THE MATERIAL BE STORED?**

Store at 2-8°C.

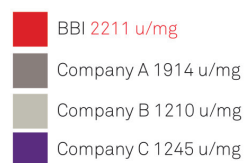
**WHAT VOLUME OF MATERIAL CAN I BUY?**

We typically pack to order and can supply any quantity from 10ku to >10,000ku.

**Product Analysis**

Use the highest quality ALP and be confident in the results:

ALP Activity  
u/mg Protein  
(Glycine)



**Related Products**

Application Area	Product Name	Code	Activity
Immunoassays	Peroxidase	HRP4	> 250 U/mg material
Immunoassays	Peroxidase	HRP4B	> 250 U/mg material
Immunoassays	Peroxidase	161451BBI	> 250 U/mg material

Order a sample today [sales@bbisolutions.com](mailto:sales@bbisolutions.com)

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