kementec

Alkaline Phosphatase (AP)

LABELS & CONJUGATES

Enzyme, Purified from calf intestine
Cat. no. 4700

Product Characteristics
Alkaline Phosphatase (AP) is purified from bovine intestinal mucosa by chromatography and filtration. AP is a zinc metaloenzyme for catalyzing the hydrolysis of an orthophosporic monoester to yield an alcohol and an orthophosphate. AP can be coupled to antibodies resulting in conjugates, used in ELISA, membrane & IHC applications, biosensors etc.
In ELISA, the main colorimetric substrate for AP is p-nitrophenyl phosphate (pNPP) which yields a yellow reaction product. Absorbance can be quantified by reading the OD at 405 nm. The kinetic reaction is terminated by the addition of a stop-solution.

Composition & Properties

Appearance	: Clear, almost colorless solution.
Activity	: > 1500 U/mg enzyme protein (25°C, 4-nitrophenyl-phosphate, glycin as buffer).
Purity	: More than 90% pure (chromatography)
Stabilizer	: 5 mM Tris, 5 mM MgCl2; 0.1 mM ZnCl2; 50% Glycerol, pH 7.0
Mol. Weight	: App. 140 kDalton
Structure	: Dimeric
Activators	: Mg++, Tris buffer pH 8-9, diethanolamine.

Inhibitors: Inorganic phosphate, chelating agents eg. EDTA.
This AP is free of BSA, azide, mercury or other toxic preservative formulations.

Tips & Tricks
- Do not freeze.
- When conjugating it to the target, the AP should first be dialyzed in order to remove the glycerol (membrane cut off 13 kDa).
- The antibodies or antigens conjugated with AP either can be stored at 2-8 °C as a concentrated stock solution or diluted in an appropriate buffer to the desired assay dilution range.
- For the stabilization of a pre-diluted conjugate, we recommend using the AP-StabilPLUS (cat. no. 4540).

Handling & Storage
- Store solution at 2-8 °C.

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