



PROTEIN A-ALKALINE PHOSPHATASE CONJUGATE

Product Code **P9650**

Product Description

Appearance: White powder

Alkaline phosphatase activity: 300 to 900 units/mg protein

Unit Definition: One unit will hydrolyze 1.0 μ mole p-nitrophenyl phosphate per minute at 10.4 at 37°C

Binding capacity: 2-5 mg human IgG/mg protein

Molecular weight: Protein A by SDS is approx. 55,000; native alkaline phosphatase (dimer) is 160,000.

Protein A (Product No. P 3838) was conjugated to Alkaline Phosphatase (Product No. P 5521).¹ The product was lyophilized from 0.01 M Tris-HCl, 0.005 M aspartate, 0.1 mM ZnCl₂, 0.1 mM MgCl₂, pH 8.0, giving a dry weight that is approximately 50% protein.

Product Profile

For immunoblotting, with colorimetric substrates, a range for serial dilutions is 1:200 to 1:800. Higher dilutions may be needed for more sensitive detection systems such as chemiluminescence. Blocking of the nitrocellulose membranes is recommended.

For ELISA applications, dilutions can be from 1:250 to 1:1000.

Product Information

See attached Binding Affinities Table

Preparation Instructions

The product, approximately 50% buffer salts (primarily Tris-aspartate), dissolves completely in water at 1 mg/ml. A 1 mg/ml stock solution may also be prepared in either 0.1 M Tris buffered saline (pH 8.6 or 9.5) or 0.1 M borate buffer, pH 8.6. Alternatively, Alkaline Phosphatase Stabilizing Buffer (Product No. A 4955) may be used.

It is recommended to store stock solutions at 2-8°C for up to one month in presence of 15 mM sodium azide. Do not freeze solutions of this product.

Storage/Stability

This conjugate should be stable for approximately one year if stored at -20°C. Storage at 37°C resulted in a loss of approximately 20% of enzymatic activity.

AC 9/14/00

Protein A Binding Affinities		
SPECIES	IIMMUNOGLOBULIN	BINDING-PROTEIN A ²⁻⁵
Human	IgG (normal)	++++
	IgG1	++++
	IgG2	++++
	IgG3	-
	IgG4	++++
	IgM	-
	IgA	-
	IgE	-
	IgD	-
	Fab	++
	K light chains	-
	L light chains	-
	ScFv	++
	Mouse	IgG1
IgG2a		++++
IgG2b		+++
IgG3		++
Rat	IgG1	-
	IgG2a	-
	IgG2b	-
	IgG2c	+
Bovine	IgG	++
Cat	IgG	++++
Chicken	IgG	-
Dog	IgG	++++
Goat	IgG	+/-
Guinea Pig	IgG	++++
Hamster	IgG	+
Horse	IgG	++
Pig	IgG	+++
Rabbit	IgG	++++
Sheep	IgG	+/-

References:

1. O'Sullivan, M.S. et al., FEBS Lett., 95, 311 (1978).
2. Kronvall, G., et al., J. Immunol., **104**, 140 (1970).
3. Richman, D.D., et al., J. Immunol., **128**, 2300 (1982).
4. Langone, J.J., J. Immunol. Meth., **24**, 269 (1978).
5. Ey, P.L., et al., Biochemistry, **15**, 429 (1978).

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