Protein A Agarose

Introduction

Protein A Agarose is prepared by covalently coupling purified Protein A to agarose beads by a cyanogen bromide method. Protein A Agarose is an affinity chromatography medium designed for one-step purification of immunoglobulins or recombinant proteins containing Fc regions from ascites, serums, cell extracts and other media.

Protein A is derived from a strain of *Staphylococcus aureus* and contains five regions that bind to the Fc region of IgG. The binding strength of protein A for IgG depends on the source species of the immunoglobulin as well as the subclass of IgG (see the following table). The dynamic binding capacity depends on the binding strength and also on several other factors, such as flow rate during sample application.

Binding characteristics of different immunoglobulins (Ig)

Species	Subclass	Protein A binding	Species	Subclass	Protein A binding
Human	Total Ig	S	**Goat**	IgG2	S
	IgG1, 2, 4	S	**Sheep**	Total Ig	W
	IgG3	W		IgG1	W
	IgD	N		IgG2	S
	IgA, IgM	W	**Cow**	Total Ig	W
	Fab	W		IgG1	W
	ScFv	W		IgG2	S
Mouse	Total Ig	S	**Horse**	Total Ig	W
	IgG1	W		IgG(ab)	W
	IgG2a, 2b, 3	S		IgG(c)	W
	IgM	N		IgG(T)	N
Rat	Total Ig	W	**Rabbit**	Total Ig	S
	IgG1	W	**Dog**	Total Ig	S
	IgG2a	N	**Cat**	Total Ig	S
	IgG2b	N	**Pig**	Total Ig	S
	IgG2c	S	**Guinea pig**	Total Ig	S
Goat	Total Ig	W	**Chicken**		N
	IgG1	W		Total Ig	

S: strong binding; M: medium binding; W: weak binding; N: no binding.

Application

This product can be used to separate and purify several classes and subclasses of antibodies from ascites, serum, or cell culture.

Storage

20% Ethanol, store at 2~8℃。