COSMO BIO CO., LTD.
Inspiration for Life Science

Affinity Gel for Purification of IgG

Ab-Capcher™

☆ 5 times the binding capacity of Protein G
☆ Labile antibodies can be bound at neutral pH
☆ Low non-specific binding
☆ IgG puirty >95%

Protein A-R28 is an alkali-tolerant IgG-binding protein derived from protein A, which is developed with ProteNova's patent technology. Protein A-R28 strongly binds to various species and subclasses of IgG, compared with Protein A and G. The coupling to resin (Ab-Capcher) provides an alkali-washable unique affinity medium with high binding capacity for immunoglobulin, which is useful for purification of human, rabbit, and mouse IgGs including mouse IgG1.Ab-Aapcher is also useful for immuno-precipitation experiments.

Characteristics

Composition	: Highly cross-linked 4% agarose
Paticle size	: 45-165 um
Ligand	: Alkali-+tolerant variant of Protein A (Protein A-R28) (*E.coli*)
Binding capacity (max.)	: > 65mg human IgG / ml gel
Delivery conditions	: 20% EtOH

Binding Characteristic of Ab-Capter

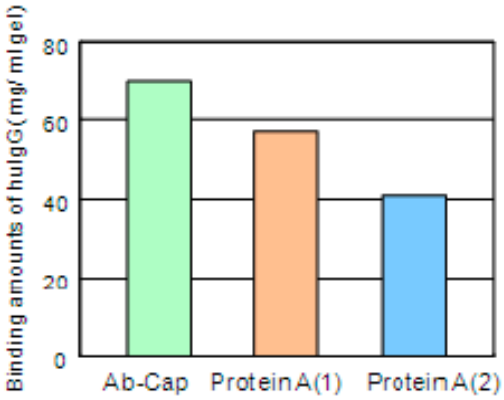
Species	Subclass	Ab-Cp	Protein A	Protein G
Mouse	IgG1	++++	+	++
	IgG2a	+++++	++++	+
Rat	IgGs	+++	-	+
Chicken	IgY	-	-	-
Human	IgG	+++++	++++	++
Rabbit	IgG	+++++	++++	++

Product Name	Cat#	Quantity
Ab-Capcher Gel		
Ab-Capcher™	PTN-P-002-2	2ml
	PTN-P-002-10	10ml
	PTN-P-002-100	100ml
Ab-Rapid PuRE (Ab-Capcher pre-packed syringe column units)		
Ab-Rapid PuRe™2	PTN-P-012-2	2 columns (0.5ml gel/column)
Ab-Rapid PuRe™10	PTN-P-012-10	10 columns (0.5ml gel/column)
Ab-Rapid PuRe Buffer Kit	PTN-P-011	Ab-Capcher binding buffer: 200 ml Ab-Capcher elution buffer: 30 ml Neutralizing buffer: 1 ml
Ab-Rapid SPiN (Ab-Capcher pre-packed spin columns)		
Ab-Rapid SPiN10	PTN-P013-10	10 PC (0.1ml gel/column)
Ab-Rapid SPiN50	PTN-P013-50	50 PC (50ml Ab-Capcher, 50 empty columns)

Application DATA

Binding of Human IgG

Binding capacities of Ab-Capcher and two protein A-resins were tested with human gamma globulin. Phosphate buffered saline (PBS) was used as binding buffer. Ab-Capcher showed the highest binding capacity in affinity media tested (-70 mg human IgG / ml gel)..



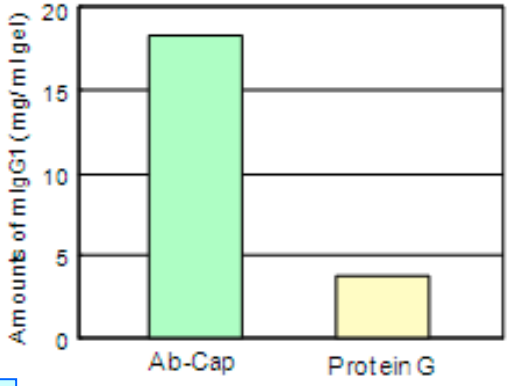
Binding of monoclonal mouse IgG1 at pH 9

Mouse ascites were precipitated with 50%-saturated ammonium sulfate, dissolved and dialyzed with PBS. The fraction diluted 3-fold with 1.5 M Glycine / 3 M NaCl buffer(pH 9.0). was used to test binding caoacity of Ab-Capcher For mouse IgG1. Ab-Capcher bound high amounts of mouse IgG1 at pH 9.0 as well as human IgG pH 7.0.

	mouse IgG_1	Human IgG
Binding amounts /ml gel	40.5 mg	70.2 mg

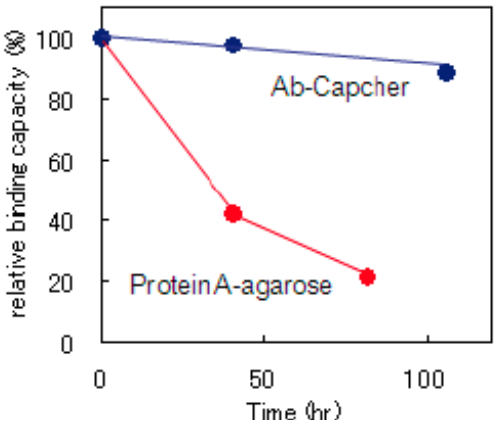
Binding of monoclonal mouse IgG1 with PBS

Fraction of 50%-saturated ammonium sulfate from mouse ascites was used to test binding capacity of Ab-Capcher and Protein G-agarose for mouse IgG1 under physiological conditions. PBS was used as binding buffer. Ab-Capcher bound larger amounts of mouse IgG1 about 5-times than conventional Protein G-agarose under physiplosical conditions (18.3 mg / ml gel)



Alkali-starability

Relative binding capacities for human IgG of Ab-Capcher and conventional Protein A-agarose were measured after treatment with 0.1 N NaOH at 25℃. Ab-Caocher remains 90 % of binding capacity after treatment for 106 hr at 25℃



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