

Binding Characteristics of Protein A, Protein G, Protein A/G and Protein L

Protein A, G, A/G and L are native and recombinant proteins of microbial origin that bind to mammalian immunoglobulins. Binding specificities and affinities of these proteins differ between source species and antibody subclass. Use the following table to select the antibody-binding protein that is best for your application:

Species	Antibody Class	Protein A	Protein G	Protein A/G	Protein L [#]
Human	Total IgG	*****	*****	*****	*****
	IgG ₁	*****	*****	*****	*****
	IgG ₂	*****	*****	*****	*****
	IgG ₃	*	*****	*****	*****
	IgG ₄	*****	*****	*****	*****
	IgM	*	NB	*	*****
	IgD	NB	NB	NB	*****
	IgA	*	NB	*	*****
	Fab	*	*	*	*****
	ScFv	*	NB	*	*****
Mouse	Total IgG	*****	*****	*****	*****
	IgM	NB	NB	NB	*****
	IgG ₁	*	***	***	*****
	IgG _{2a}	*****	*****	*****	*****
	IgG _{2b}	*****	*****	*****	*****
Rat	Total IgG	*	***	***	*****
	IgG ₁	*	***	***	*****
	IgG _{2a}	NB	*****	*****	*****
	IgG _{2b}	NB	*	*	*****
	IgG _{2c}	*****	*****	*****	*****
Cow	Total IgG	*	*****	*****	NB
	IgG ₁	*	*****	*****	NB
	IgG ₂	*****	*****	*****	NB
Goat	Total IgG	*	*****	*****	NB
	IgG ₁	*	*****	*****	NB
	IgG ₂	*****	*****	*****	NB
Sheep	Total IgG	*	*****	*****	NB
	IgG ₁	*	*****	*****	NB
	IgG ₂	*****	*****	*****	NB
Horse	Total IgG	*	*****	*****	?
	IgG(ab)	*	NB	*	?
	IgG(c)	*	NB	*	?
	IgG(T)	NB	*****	*****	?
Rabbit	Total IgG	*****	*****	*****	*
Guinea Pig	Total IgG	*****	*	*****	?
Pig	Total IgG	*****	*	*****	*****
Dog	Total IgG	*****	*	*****	?
Cat	Total IgG	*****	*	*****	?
Chicken	Total IgY	NB	NB	NB	NB

*****= Strong binding, ***= Medium Binding, *= Weak Binding; NB= No Binding, ?= Information unavailable.

[#]For Protein L binding the immunoglobulin must have the appropriate kappa light chains. See Protein L protocols for more details.



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