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Biotin Conjugated Protein G

Basic Information			
Catalog Number	BA1026-0.5		
Size	0.5 mL		
Concentration	1 mg/mL		
Host	E. coli		
Conjugation	Biotin		
Form	Concentrated, Liquid		
Tested Application	IHC, ELISA		
Contents	0.5 mg of biotin conjugated protein G, Biotin: Ab=10:1, 0.01 M PBS, 50% glycerol.		
Specificity	Biotin conjugated antibody is specific for Protein G, human IgG, mouse IgG1, rabbit IgG, guinea pig IgG, rat IgG, goat IgG, sheep IgG, cow IgG, horse IgG.		

Suggested Working Concentration

Immunohistochemistry: 5-10 µg/mL

ELISA: $0.05\text{-}0.2 \mu g/mL$

Optimal working dilutions must be determined by end users.

Application Notes

This antibody must be used with various kinds of enzymes or fluorescence conjugated avidin (streptavidin) in IHC and ELISA.

Dilute with neutral PBS or TBS.

Storage

At -20° C for one year from date of receipt. Avoid repeated freezing and thawing.

Product Description

Protein G is an immunoglobulin-binding protein expressed in group C and G Streptococcal bacteria much like Protein A but with differing binding specificities. It is a 65-kDa (G148 protein G) and a 58 kDa (C40 protein G) cell surface protein that has found application in purifying antibodies through its binding to the Fab and Fc region. The native molecule also binds albumin, but because serum albumin is a major contaminant of antibody sources, the albumin binding site has been removed from recombinant forms of Protein G.

Table 1
Binding capabilities for immunoglobulin proteins and protein A, G and A/G

IgM W NB W W NB W W IgA W NB NB W W W W W W W W W	Species	Antibody Class	Protein A	Protein G	Protein A/G
IgG2 S	Human	Total IgG	S	S	S
Human		lgG1	S	S	S
Human IgG4 S S S IgM W NB W IgA W NB W IgD NB NB NB IgD NB NB NB NB NB NB NB IgG1 W M M IgG2a S S S IgG2b S S S IgG3 S S S IgM NB NB NB IgM NB NB NB IgG1 W M M IgG1 W M M IgG2a NB S S IgG2b NB W W IgG2c S S S IgG2 S S S IgG2 S S S IgG2 S S S IgG2 S<		IgG2	S	S	S
IgM W NB W W NB W W IgA W NB NB W W W W W W W W W		IgG3	W	S	S
IgA W NB W IgD NB NB NB NB Fab W W W W W W W IgG1 W M M M IgG2a S S S S IgG2b S S S S IgG3 S S S S IgM NB NB NB NB IgG1 W M M M IgG2a NB S S IgG2b NB W W W IgG2c S S S IgG2c S S S IgG2 S S S IgG3 W S S IgG4 W S S IgG5 S S S IgG5 S S S IgG6 W S S IgG1 W S S IgG2 S S S IgG3 S S S IgG4 W S S IgG5 S S S IgG6 W S S IgG7 W S S IgG8 S S S IgG9 S S S IgG1 W S S IgG5 S S S IgG6 Total IgG W S S IgG6 Total IgG Total IgG		IgG4	S	S	S
IgD		IgM	W	NB	W
Fab W W W W		IgA	W	NB	W
Mouse Total IgG S S S IgG1 W M M IgG2a S S S IgG2b S S S IgG3 S S S IgM NB NB NB NB NB NB M IgG1 W M M IgG2a NB S S IgG2b NB W W IgG2c S S S IgG2b NB W W IgG1 W S S IgG1 W S S IgG1 W S S IgG1 W S S IgG2 S S S IgG2 S S S IgG1 W S S IgG2 S S S IgG2 S<		IgD	NB	NB	NB
IgG1		Fab	W	W	W
IgG2a S S S S S S S S S	Mouse	Total IgG	S	S	S
IgG2b S S S S S S S S S		IgG1	W	М	М
IgG2b S S S S IgG3 S S S S IgM NB NB NB Total IgG W M M M IgG1 W M M M IgG2a NB S S IgG2b NB W W W IgG2c S S S Total IgG W S S IgG1 W S S IgG2 S S S IgG3 W S S IgG4 W S S IgG5 W S S IgG6 W S S IgG7 S S S IgG8 S S S IgG9 S S S IgG9 S S S IgG1 W S S IgG2 S S S IgG3 S S S IgG4 IgG6 S S S IgG5 IgG6 S S S IgG7 IgG6 IgG6 S S S IgG8 IgG6 IgG6 S S S IgG8 IgG6 IgG6 S S S IgG8 IgG6 IgG6		lgG2a	S	S	S
IgM		lgG2b	S	S	S
Total IgG		IgG3	S	S	S
IgG1		IgM	NB	NB	NB
Rat IgG2a NB S S IgG2b NB W W IgG2c S S S Total IgG W S S IgG1 W S S IgG2 S S S IgG1 W S S IgG2 S S S Sheep IgG1 W S S IgG1 W S S IgG2 S S S Horse Total IgG W S S Rabbit Total IgG S S S	Rat	Total IgG	W	М	М
IgG2b NB W W IgG2c S S S Total IgG W S S IgG1 W S S IgG2 S S S Total IgG W S S IgG2 S S S S S S IgG1 W S S IgG1 W S S IgG2 S S S IgG2 S S S IgG2 S S S IgG4 W S S S S S S S IgG5 W S S IgG6 W S S IgG7 S S S IgG8 S S S IgG9 S S S IgG9 S S S IgG1 W S S IgG2 S S S IgG3 S S S IgG4 IgG5 S S IgG5 IgG6 S S S IgG6 IgG7 Ig		lgG1	W	M	М
IgG2c S S S S		lgG2a	NB	S	S
Cow Total IgG W S S IgG1 W S S IgG2 S S S Goat Total IgG W S S IgG1 W S S IgG2 S S S Sheep IgG1 W S S IgG2 S S S Horse Total IgG W S S Rabbit Total IgG S S S		lgG2b	NB	W	W
Cow IgG1 W S S IgG2 S S S S Total IgG W S S IgG1 W S S IgG2 S S S Sheep IgG1 W S S IgG2 S S S Horse Total IgG W S S Rabbit Total IgG S S S		lgG2c	S	S	S
IgG2 S S S S	Cow	Total IgG	W	S	S
Total IgG W S S IgG1 W S S IgG2 S S S Total IgG W S S Sheep IgG1 W S S IgG2 S S S IgG2 S S S IgG4 W S S IgG5 S S S IgG6 S S S IgG7 S S S IgG8 Total IgG W S S Rabbit Total IgG S S S S S S S S S		lgG1	W	S	S
Goat IgG1 W S S IgG2 S S S Sheep Total IgG W S S IgG1 W S S IgG2 S S S Horse Total IgG W S S Rabbit Total IgG S S S		lgG2	S	S	S
IgG2 S S S S	Goat	Total IgG	W	S	S
Total IgG		lgG1	W	S	S
IgG1 W S S IgG2 S S S Horse Total IgG W S S Rabbit Total IgG S S S		lgG2	S	S	S
IgG2 S S S Horse Total IgG W S S Rabbit Total IgG S S S	Sheep	Total IgG	W	S	S
Horse Total IgG W S S Rabbit Total IgG S S S		lgG1	W	S	S
Rabbit Total IgG S S S		lgG2	S	S	S
	Horse	Total IgG	W	S	S
Guinea Pig Total IgG S W S	Rabbit	Total IgG	s	s	s
	Guinea Pig	Total IgG	S	W	S
Pig Total IgG S W S	Pig	Total IgG	S	W	S
Dog Total IgG S W S	Dog	Total IgG	S	W	S
Cat Total IgG S W S	Cat	Total IgG	S	W	S
Chicken Total IgY NB NB NB	Chicken	Total IgY	NB	NB	NB

Binding will only occur if the appropriate kappa light chains are present. The binding affinity only refers to species and