Rabbit Anti–Goat IgG Antibodies

Quick Facts

Storage upon receipt:
- 4°C
- Protect from light

Abs/Em: See Table 1

Working Concentrations: 1–10 µg/mL

Introduction

Rabbit anti–goat IgG antibodies (Table 1) are prepared from affinity-purified antibodies that react with IgG heavy chains and all classes of immunoglobulin light chains from goat. To minimize cross-reactivity, the rabbit anti–goat IgG antibodies have been adsorbed against human and rat serum proteins prior to labeling. The Alexa Fluor® dyes to which these antibodies are conjugated provide for extraordinarily bright antibody conjugates. The approximate absorption and fluorescence emission maxima for each of the conjugates are shown in Table 1.

In addition to these secondary antibodies, Invitrogen prepares fluorescent conjugates of many other species-specific anti–IgG antibodies, as well as conjugates of avidin, streptavidin, NeutrAvidin™ biotin-binding protein, protein A and protein G. For details on these products, visit www.probes.com or contact our Technical Support.

Materials

Rabbit Anti-goat Antibodies

The rabbit anti–goat IgG (H+L) antibodies are supplied in unit sizes of 0.5 mL as 2 mg/mL solutions in 0.1 M sodium phosphate, 0.1 M NaCl, pH 7.5, containing 5 mM sodium azide.

When these products are stored undiluted at 4°C and protected from light, they are stable for at least three months. For longer storage, divide the solution into single-use aliquots and freeze at -20°C. Frozen aliquots are stable for at least six months. PROTECT FROM LIGHT. AVOID REPEATED FREEZING AND THAWING.

Table 1. Rabbit anti–goat IgG antibodies.*

Label	Ex *	Em *	IgG†	$F(ab')_2$ fragment ‡
Unlabeled	not applicable		A10537	
Biotin-XX	not applicable		A10518	
Fluorescein	494	519	A10529	
Alexa Fluor® 488	495	519	A11078	A21222
Alexa Fluor® 546	556	573	A21085	
Tetramethylrhodamine	555	580	A10532	
Alexa Fluor® 555	555	565	A21431	
Alexa Fluor®568	578	603	A11079	
Alexa Fluor® 594	590	617	A11080	A21223
Alexa Fluor® 633 §	632	647	A21086	
Alexa Fluor® 647 §	650	668	A21446	
Alexa Fluor® 660 §	663	690	A21087	
Alexa Fluor® 680 §	679	702	A21088	

* Approximate fluorescence excitation (Ex) and emission (Em) maxima, in nm, for conjugates. † Cross-adsorbed against human and rat serum proteins to minimize cross-reactivity. ‡ Cross-absorbed against human and mouse serum proteins to minimize cross-reactivity. § Human vision is insensitive to light beyond ~650 nm, and therefore it is not possible to view the fluorescence of these dyes by looking through a conventional fluorescence microscope.

The degree of labeling for each conjugate is typically 2–8 fluorophore or biotin molecules per IgG molecule; the exact degree of labeling is indicated on the product label. At the time of preparation, the products are certified to be free of unconjugated dyes and are tested in a cytological experiment to ensure low nonspecific staining.

Application

Centrifuge the protein conjugate solution briefly in a microcentrifuge before use; add only the supernatant to the experiment. This step eliminates any protein aggregates that may have formed during storage, thereby reducing nonspecific background staining.

Because staining protocols vary with application, empirically determine the appropriate dilution of the antibody. For rabbit anti-goat antibodies, a final concentration of 1–10 µg/mL should be satisfactory for most immunohistochemical applications.[2]

References

1. Cytometry 8, 91 (1987); 2. Short Protocols in Molecular Biology, 2nd Edition, F.M. Ausubel et al., Eds., John Wiley and Sons (1992) pp. 14-24–14-30.

Product List Current prices may be obtained from our Web site or from our Customer Service Department.

Cat. no.	Product Name	Unit Size
A11078	Alexa Fluor® 488 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A21222	Alexa Fluor® 488 rabbit anti-goat IgG (H+L), $F(ab')_2$ fragment *2 mg/mL*	250 µL
A21085	Alexa Fluor® 546 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A21431	Alexa Fluor® 555 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A11079	Alexa Fluor® 568 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A11080	Alexa Fluor® 594 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A21223	Alexa Fluor® 594 rabbit anti-goat IgG (H+L), $F(ab')_2$ fragment *2 mg/mL*	250 µL
A21086	Alexa Fluor® 633 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A21446	Alexa Fluor® 647 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A21087	Alexa Fluor® 660 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A21088	Alexa Fluor® 680 rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A10518	Biotin-XX rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A10529	Fluorescein rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL
A10537	Rabbit anti-goat IgG (H+L) *2 mg/mL	0.5 mL
A10532	Tetramethylrhodamine rabbit anti-goat IgG (H+L) *2 mg/mL*	0.5 mL

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