

Goat Anti–Mouse Isotype-Specific Antibodies

Table 1. Contents and storage information.

Material	Working Concentration	Storage*	Stability†
Goat anti–mouse isotype-specific antibodies	1–10 µg/mL	<ul style="list-style-type: none"> • 2–6°C • Protect from light • Avoid repeated freezing and thawing 	When stored undiluted as directed, products are stable for at least 3 months.
*For longer storage, divide solution into single-use aliquots and freeze at ≤–20°C. †Frozen aliquots are stable for at least 6 months.			
Approximate fluorescence excitation/emission maxima: See Table 2.			

Introduction

The fluorescent goat anti–mouse isotype-specific antibodies (Table 2) are prepared from affinity-purified antibodies that react with the Fc portion of the heavy chain of mouse IgG of the appropriate isotype. To minimize cross-reactivity, the anti–mouse isotype-specific antibodies have been adsorbed against mouse IgM, mouse IgA, pooled human sera, purified human paraproteins, and the appropriate mouse IgG isotypes prior to labeling (see Table 2). The Alexa Fluor® dyes to which these antibodies are conjugated provide for extraordinarily bright antibody conjugates. Table 2 lists the approximate fluorescence excitation and emission maxima for each of the conjugates.

The Alexa Fluor® labeled goat anti–mouse isotype-specific IgG antibodies are supplied in unit sizes of 250 µL as 2 mg/mL solutions in 0.1 M sodium phosphate, 0.1 M NaCl, pH 7.5, containing 5 mM sodium azide. The degree of labeling for each conjugate is typically 2–8 fluorophore 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.

The R-phycoerythrin and allophycocyanin labeled goat anti–mouse isotype-specific IgG antibodies are supplied in unit sizes of 250 µL as 1 mg/mL solutions in 0.1 M sodium phosphate, 0.1 M NaCl, 2 mM EDTA, pH 7.5, 1% glycerol, 1% Prionex, and 5 mM azide.

In addition to the antibodies listed in this Product Information sheet, 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, visit www.invitrogen.com or contact Technical Support.

Table 2. Goat anti–mouse IgG isotype-specific antibodies.

Label	Ex/Em *	IgG ₁ (γ1)	IgG _{2a} (γ2a)	IgG _{2b} (γ2b)	IgG ₃ (γ3)
Unlabeled	not applicable	A10538			
Biotin-XX	not applicable	A10519			
Fluorophore					
Alexa Fluor® 350	346/442	A21120	A21130	A21140	
R-phycoerythrin	480, 546, 565/578 †	P21129	P21139	P21149	
Fluorescein	494/519	A10530			
Alexa Fluor® 488	495/519	A21121	A21131	A21141	A21151
Alexa Fluor® 546	556/573	A21123	A21133	A21143	
Alexa Fluor® 555	555/565	A21127	A21137	A21147	A21157
Alexa Fluor® 568	578/603	A21124	A21134	A21144	
Alexa Fluor® 594	590/617	A21125	A21135	A21145	A21155
Alexa Fluor® 633 † ‡	632/647	A21126	A21136	A21146	
Allophycocyanin	650/660	A10541	A10686		
Alexa Fluor® 647 ‡	650/668	A21240	A21241	A21242	
Alexa Fluor® 680 ‡	679/702	A31562	A31563	A31564	

* Approximate fluorescence excitation (Ex) and emission (Em) maxima, in nm. Anti–mouse IgG₁ antibodies have been adsorbed against mouse IgM, IgG_{2a}, IgG_{2b}, IgG₃ and IgA, pooled human sera, and purified human paraproteins; IgG_{2a} antibodies have been adsorbed against mouse IgM, IgG₁, IgG_{2b}, IgG₃ and IgA, pooled human sera, and purified human paraproteins; IgG_{2b} antibodies have been adsorbed against mouse IgM, IgG₁, IgG_{2a}, IgG₃ and IgA, pooled human sera, and purified human paraproteins; IgG₃ antibodies have been adsorbed against mouse IgM, IgG₁, IgG_{2a}, IgG_{2b} and IgA, pooled human sera, and purified human paraproteins to minimize cross-reactivity. † Multiple excitation peaks. ‡ Human vision is insensitive to light beyond ~650 nm, and therefore it is not possible to view the fluorescence of the Alexa Fluor® 633, Alexa Fluor® 647, and Alexa Fluor® 680 dyes by looking through a conventional fluorescence microscope.

Guidelines for Use

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 form during storage, and reduces nonspecific background staining.

Because staining protocols vary with application, the appropriate dilution of antibody should be determined empirically. For the Alexa Fluor® labeled antibodies, a final concentration of 1–10 µg/mL should be satisfactory for most immunohistochemical applications. For the R-phycoerythrin–labeled antibodies, 1–3 µg of conjugate is usually sufficient to label approximately 1 million cells.

Reference

1. 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 website or from our Customer Service Department.

Cat. no.	Product Name	Unit Size
A21120	Alexa Fluor [®] 350 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21130	Alexa Fluor [®] 350 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21140	Alexa Fluor [®] 350 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21121	Alexa Fluor [®] 488 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21131	Alexa Fluor [®] 488 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21141	Alexa Fluor [®] 488 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21151	Alexa Fluor [®] 488 goat anti-mouse IgG ₃ (γ3) *2 mg/mL*	250 μL
A10530	Fluorescein goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21123	Alexa Fluor [®] 546 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21133	Alexa Fluor [®] 546 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21143	Alexa Fluor [®] 546 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21127	Alexa Fluor [®] 555 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21137	Alexa Fluor [®] 555 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21147	Alexa Fluor [®] 555 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21157	Alexa Fluor [®] 555 goat anti-mouse IgG ₃ (γ3) *2 mg/mL*	250 μL
A21124	Alexa Fluor [®] 568 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21134	Alexa Fluor [®] 568 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21144	Alexa Fluor [®] 568 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21125	Alexa Fluor [®] 594 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21135	Alexa Fluor [®] 594 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21145	Alexa Fluor [®] 594 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21155	Alexa Fluor [®] 594 goat anti-mouse IgG ₃ (γ3) *2 mg/mL*	250 μL
A21126	Alexa Fluor [®] 633 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21136	Alexa Fluor [®] 633 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21146	Alexa Fluor [®] 633 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A21240	Alexa Fluor [®] 647 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A21241	Alexa Fluor [®] 647 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A21242	Alexa Fluor [®] 647 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A10541	Allophycocyanin goat anti-mouse IgG ₁ (γ1) *1 mg/mL*	250 μL
A10686	Allophycocyanin goat anti-mouse IgG _{2a} (γ2a) *1 mg/mL*	250 μL
A31562	Alexa Fluor [®] 680 goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A31563	Alexa Fluor [®] 680 goat anti-mouse IgG _{2a} (γ2a) *2 mg/mL*	250 μL
A31564	Alexa Fluor [®] 680 goat anti-mouse IgG _{2b} (γ2b) *2 mg/mL*	250 μL
A10519	Biotin-XX goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
A10538	goat anti-mouse IgG ₁ (γ1) *2 mg/mL*	250 μL
P21129	R-phycoerythrin goat anti-mouse IgG ₁ (γ1) conjugate *1 mg/mL*	250 μL
P21139	R-phycoerythrin goat anti-mouse IgG _{2a} (γ2a) conjugate *1 mg/mL*	250 μL
P21149	R-phycoerythrin goat anti-mouse IgG _{2b} (γ2b) conjugate *1 mg/mL*	250 μL

Contact Information

Molecular Probes, Inc.

29851 Willow Creek Road
Eugene, OR 97402
Phone: (541) 465-8300
Fax: (541) 335-0504

Customer Service:

6:00 am to 4:30 pm (Pacific Time)
Phone: (541) 335-0338
Fax: (541) 335-0305
probesorder@invitrogen.com

Toll-Free Ordering for USA:

Order Phone: (800) 438-2209
Order Fax: (800) 438-0228

Technical Service:

8:00 am to 4:00 pm (Pacific Time)
Phone: (541) 335-0353
Toll-Free (800) 438-2209
Fax: (541) 335-0238
probestech@invitrogen.com

Invitrogen European Headquarters

Invitrogen, Ltd.
3 Fountain Drive
Inchinnan Business Park
Paisley PA4 9RF, UK
Phone: +44 (0) 141 814 6100
Fax: +44 (0) 141 814 6260
Email: euroinfo@invitrogen.com
Technical Services: eurotech@invitrogen.com

**For country-specific contact information,
visit www.invitrogen.com.**

Further information on Molecular Probes products, including product bibliographies, is available from your local distributor or directly from Molecular Probes. Customers in Europe, Africa and the Middle East should contact our office in Paisley, United Kingdom. All others should contact our Technical Service Department in Eugene, Oregon.

Molecular Probes products are high-quality reagents and materials intended for research purposes only. These products must be used by, or directly under the supervision of, a technically qualified individual experienced in handling potentially hazardous chemicals. Please read the Material Safety Data Sheet provided for each product; other regulatory considerations may apply.

Limited Use Label License No. 223: Labeling and Detection Technology

The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. The buyer may transfer information or materials made through the use of this product to a scientific collaborator, provided that such transfer is not for any Commercial Purpose, and that such collaborator agrees in writing (a) to not transfer such materials to any third party, and (b) to use such transferred materials and/or information solely for research and not for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research. Invitrogen Corporation will not assert a claim against the buyer of infringement of the above patents based upon the manufacture, use or sale of a therapeutic, clinical diagnostic, vaccine or prophylactic product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. If the purchaser is not willing to accept the limitations of this limited use statement, Invitrogen is willing to accept return of the product with a full refund. For information on purchasing a license to this product for purposes other than research, contact Molecular Probes, Inc., Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.

Several Molecular Probes products and product applications are covered by U.S. and foreign patents and patents pending. All names containing the designation ® are registered with the U.S. Patent and Trademark Office.

Copyright 2009, Molecular Probes, Inc. All rights reserved. This information is subject to change without notice.