

Labeled Goat Anti-Human IgG and IgM Antibodies

Quick Facts

Storage upon receipt:

- 4°C
- Protect from light

Abs/Em: See Table 1

Working Concentrations: 1–10 µg/mL

Introduction

Molecular Probes' goat anti-human IgG conjugates (Table 1) are prepared from affinity-purified antibodies that react with human IgG heavy chains and all classes of human immunoglobulin light chains. To minimize cross-reactivity, the goat anti-human IgG antibodies have been adsorbed against mouse, rabbit and bovine sera prior to labeling.

Molecular Probes' goat anti-human IgM conjugates (Table 1) are prepared from antibodies purified by human IgM-affinity chromatography. The antibodies react specifically with IgM heavy chains (µ chains) and not with immunoglobulin light chains. To minimize cross-reactivity, the goat

anti-human IgM antibodies have been adsorbed against human IgG prior to labeling.

In addition to the antibodies listed in this Product Information sheet, Molecular Probes prepares fluorescent conjugates of many other species-specific anti-IgG antibodies, as well as conjugates of avidin, streptavidin, NeutrAvidin™ biotin-binding protein and protein A. Please visit our Web site at www.probes.com or contact our Technical Assistance Department for more information about these products.

Materials

Contents

The goat anti-human IgG and the goat anti-human IgM antibody conjugates are supplied in 0.1 M sodium phosphate, 0.1 M NaCl, pH 7.5, containing 5 mM sodium azide. The goat anti-human IgG antibody conjugates are supplied as a solution in unit sizes of 0.5 mL at 2 mg/mL, and the goat anti-mouse IgM conjugates are supplied as a solution in unit sizes of 250 µL at 2 mg/mL.

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 label and are tested in a cytological experiment to ensure low nonspecific staining.

Storage

When these products are stored undiluted at 4°C, 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.**

Application

It is a good practice to centrifuge the protein conjugate solution briefly in a microcentrifuge before use; only the supernatant should then be added to the experiment. This step will eliminate any protein aggregates that may have formed during storage, thereby reducing nonspecific background staining.

Because staining protocols vary with application, the appropriate dilution of antibody should be determined empirically. For these labeled antibodies, a final concentration of 1–10 µg/mL should be satisfactory for most immunohistochemical applications.¹

Table 1. Molecular Probes' labeled goat anti-human IgG and IgM antibodies.

| Label | Abs * | Em * | Goat anti-human IgG † | Goat anti-human IgM ‡ |
|------------------|-------|------|-----------------------|-----------------------|
| DSB-X™ biotin | NA | NA | D-20700 | |
| Alexa Fluor® 488 | 495 | 519 | A-11013 | A-21215 |
| Alexa Fluor® 546 | 556 | 573 | A-21089 | |
| Alexa Fluor® 555 | 555 | 565 | A-21433 | |
| Alexa Fluor® 568 | 578 | 603 | A-21090 | |
| Alexa Fluor® 594 | 590 | 617 | A-11014 | A-21216 |
| Alexa Fluor® 633 | 632 | 647 | A-21091 | |
| Alexa Fluor® 647 | 650 | 668 | A-21445 | A-21249 |
| Alexa Fluor® 660 | 663 | 690 | A-21092 | |

* Approximate absorption (Abs) and fluorescence emission (Em) maxima in nm for conjugates. † The goat anti-human IgG has been adsorbed against mouse, rabbit and bovine sera to minimize cross-reactivity. ‡ The goat anti-human IgM has been adsorbed against human IgG and IgA.

References

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 Web site or from our Customer Service Department.*

| Cat # | Product Name | Unit Size |
|---------|--|-----------|
| A-11013 | Alexa Fluor [®] 488 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-21215 | Alexa Fluor [®] 488 goat anti-human IgM (μ chain) *2 mg/mL* | 250 μL |
| A-21089 | Alexa Fluor [®] 546 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-21433 | Alexa Fluor [®] 555 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-21090 | Alexa Fluor [®] 568 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-11014 | Alexa Fluor [®] 594 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-21216 | Alexa Fluor [®] 594 goat anti-human IgM (μ chain) *2 mg/mL* | 250 μL |
| A-21445 | Alexa Fluor [®] 647 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-21249 | Alexa Fluor [®] 647 goat anti-human IgM (μ chain) *2 mg/mL* | 250 μL |
| A-21091 | Alexa Fluor [®] 633 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| A-21092 | Alexa Fluor [®] 660 goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |
| D-20700 | DSB-X [™] biotin goat anti-human IgG (H+L) *2 mg/mL* | 0.5 mL |

Contact Information

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 Leiden, the Netherlands. All others should contact our Technical Assistance Department in Eugene, Oregon.

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