Revised: 12–July–2001

Labeled Chicken Anti–Rat IgG Antibodies

Quick Facts

Storage upon receipt:
- 4°C or –20° in aliquots
- Avoid freeze-thaw cycles
- Protect from light

Abs/Em: See Table 1

Working concentration: 1–10 µg/mL

Table 1. *Molecular Probes' labeled chicken anti–rat IgG antibodies.**

Catalog #	Label	Abs †	Em †
A-21470	Alexa Fluor 488	495	519
A-21471	Alexa Fluor 594	590	617
A-21472	Alexa Fluor 647 ‡	650	668

* Cross-adsorbed against human and rabbit IgG. † Approximate absorption (Abs) and fluorescence emission (Em) maxima in nm. ‡ Human vision is insensitive to light beyond ~650 nm, and therefore it is not possible to view the fluorescence of the Alexa Fluor 647 dye by looking through a conventional fluorescence microscope.

Introduction

Molecular Probes now offers chicken anti–rat antibodies. Chicken anti–rat antibodies react with IgG heavy chains and all classes of immunoglobulin light chains from rat. Chicken secondary antibodies have gained popularity because they demonstrate a lower level of nonspecific binding. Chicken antibodies lack a classic "Fc" domain and will not bind to protein A or protein G, nor will they bind to mammalian IgG Fc receptors. To minimize cross-reactivity, the chicken anti–rat IgG antibodies have been adsorbed against human and rabbit IgG prior to conjugation.

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 the secondary antibodies described 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, protein A and protein G. Please consult our Web site at www.probes.com or contact our Technical Assistance Department for more information about these products.

Materials

Contents

The fluorophore-labeled chicken anti–rat 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.

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.

Storage

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.

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 fluorophore-labeled antibodies, a final concentration of 1–10 µg/mL should be satisfactory for most immunohistochemical applications.[1]

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-21470	Alexa Fluor® 488 chicken anti-rat IgG (H+L) conjugate *2 mg/mL*	0.5 mL
A-21471	Alexa Fluor® 594 chicken anti-rat IgG (H+L) conjugate *2 mg/mL*	0.5 mL
A-21472	Alexa Fluor® 647 chicken anti-rat IgG (H+L) conjugate *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.

Please visit our Web site — **www.probes.com** — for the most up-to-date information

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