

Anti- β -Glucuronidase Rabbit IgG (H+L) Fraction (A-5790)

Quick Facts

Storage upon receipt:

- 4°C
- Protect from light

(A-5790). This antibody, raised in rabbit against *E. coli* GUS, is determined to be >95% IgG by SDS-polyacrylamide gel electrophoresis. For detection of this rabbit antibody, Molecular Probes offers a variety of such second-step reagents labeled with biotin or with a wide range of fluorophores.

Introduction

The *Escherichia coli* β -glucuronidase (GUS) gene is commonly employed as a reporter gene in plant transformation. In comparison with other reporter enzymes, GUS has several advantages: 1) There is very little endogenous activity in many higher plants, including tobacco, potato, soybean, wheat, rice and *Brassica*; 2) The enzyme is very stable; and 3) GUS activity can be assayed at a wide pH range.¹⁻³ GUS catalyzes the cleavage of a variety of β -glucuronides, including many chromogenic and fluorogenic substrates, thus allowing histochemical, spectrophotometric and fluorometric measurements of GUS gene expression.⁴ Alternatively, the GUS enzyme may be detected with anti- β -glucuronidase in tissue sections or Western blots.^{5,6} To facilitate these studies, Molecular Probes has prepared a highly purified anti- β -glucuronidase rabbit IgG (H+L) fraction

Materials

Anti- β -glucuronidase antibody is supplied in 0.5 mL units of a 2 mg/mL solution in phosphate-buffered saline, pH 7.2 (PBS) containing 2 mM sodium azide. When this product is stored undiluted at 4°C, protected from light, it is 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. AVOID REPEATED FREEZING AND THAWING.

Application

Because staining protocols vary with application, the appropriate dilution of antibody should be determined empirically. We suggest using serial dilutions from about 1:500 to 1:10,000 to determine the optimal conditions for your experiments.

References

1. Proc Natl Acad Sci USA 83, 8447 (1986); 2. EMBO J 6, 3901 (1987); 3. Plant Mol Biol Rep 5, 387 (1987); 3. Mol Gen Genet 215, 38 (1988); 4. *GUS Protocols: Using the GUS Gene as a Reporter of Gene Expression*, S.R. Gallagher, Ed., Academic Press, Inc. (1992); 5. Mol Cell Biol 6, 811 (1986); 6. Proc Natl Acad Sci USA 86, 1529 (1989).

Product List

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

Cat #	Product Name	Unit Size
A-5790	anti- β -glucuronidase, rabbit IgG (H+L) fraction *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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