



Monoclonal Anti-human B4GalT1 Antibody

ORDERING INFORMATION

Catalog Number: MAB3609

Clone: 394706

Lot Number: ZFO01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS
with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human B4GalT1

Immunogen: NS0-derived rhB4GalT1

Ig class: mouse IgG_{2b}

Recommended Applications:
Western blot
Immunoprecipitation

Background

β-1, 4-galactosyltransferase 1 (B4GalT1) is one of seven B4GalT genes. Human B4GalT1 encodes a type II membrane protein, which is ubiquitously expressed and involved in glycoconjugate biosynthesis. A soluble form (aa 78 to 398), derived from proteolytic cleavage, is a component of lactose synthase in milk that also contains α-lactalbumin. The amino acid sequence of human B4GALT1 is 88%, 87% and 71% identical to that of rat, mouse/canine and chicken.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, NS0-derived, recombinant human B4GalT1 (rhB4GalT1; aa 44 - 398; Accession # NP_001488) luminal domain. The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody was selected for its ability to detect human B4GalT1 in direct ELISAs and Western blots.

Applications

Western blot - This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human B4GalT1. Using a colorimetric detection system, the detection limit for rhB4GalT1 is approximately 5 ng/lane under non-reducing and reducing conditions. Chemiluminescent detection with WesternGlo™ Chemiluminescent Detection Substrate (R&D Systems, Catalog # AR004) will increase sensitivity by 5 to 50 fold.

Immunoprecipitation - This antibody was used at a concentration of 25 µg/mL to immunoprecipitate rhB4GalT1 from conditioned cell culture medium. The recovered rhB4GalT1 can be detected in Western blots using a polyclonal antibody (R&D Systems, Catalog # AF3609).

Optimal dilutions should be determined by each laboratory for each application.