Mouse ASGR1/ASGPR1 Alexa Fluor® 405-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 352803

Catalog Number: FAB27552V

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse ASGR1/ASGPR1 in direct ELISAs.
Source	Monoclonal Rat IgG_{2A} Clone # 352803
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse ASGR1/ASGPR1 Ser60-Asn284 Accession # NP_033844
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
ELISA	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

The mouse asialoglycoprotein receptor (ASGP-R) is an endocytic recycling receptor that belongs to the long-form subfamily of the C-type/Ca^{++}-dependent lectin family (1-3). It is a complex of two non-covalently linked subunits, a major 42 kDa glycoprotein (ASGPR1), and a minor 51 kDa glycoprotein (ASGR2). The major mouse ASGP-R subunit, ASGPR1, is synthesized as a 284 amino acid (aa) type II transmembrane (TM) protein that contains a 39 aa cytoplasmic region, a 21 aa TM segment, and a 224 aa extracellular domain (ECD) (4-6). The ECD contains two important structural regions. The first is a stalk region of 56 aa (aa's 59-117) that contributes to non-covalent oligomerization. The second is a 118 aa, carbohydrate-binding, Ca^{++}-dependent C-type lectin domain (aa's 160-277) that is unusually stabilized by three Ca^{++} ions (3, 5). There are two potential alternate splice forms for ASGPR1. Both are TM and show a deletion of the C-type lectin domain. One is 113 aa in length and shows a deletion of aa's 114-284 (7). The second is 132 aa in length and shows a deletion of aa's 118-146 and aa's 162-284 (8). Mouse ASGPR1 ECD is 89% and 79% aa identical to the ASGPR1 ECD in rat and human, respectively. The minor mouse ASGP-R subunit, ASGR2, is also a C-type lectin that shares the same structural organization as ASGR-1. It is 301 aa in length and has two 45 kDa and 51 kDa differentially-glycosylated isoforms (4, 6, 9). The ECD of ASGR2 is 50% aa identical to the ECD of ASGPR1. Although ASGPR1 and 2 can be expressed individually, a fully functional and stable ASGP-R requires simultaneous expression of both subunits (10-12). The stoichiometry of a functional ASGP-R is suggested to be either a 2:2, 3:1 or 3:2 ratio of ASGPR1:ASGR2 (13, 14). ASGPR1 is reported to bind Gal (nonreducing), GalNAc, and sialic acidα2,6GalNAc (3, 15, 16). This is generally in the context of triantennary or tetraantennary configurations (2).

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