



Anti-rat SMAGP Antibody

ORDERING INFORMATION

Catalog Number: AF3967

Lot Number: YUX01

Size: 100 µg

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

Storage: -20° C

Reconstitution: sterile PBS

Specificity: rat SMAGP

Immunogen: *E. coli*-derived rrSMAGP

Ig Type: goat IgG

Applications: Western blot
Immunohistochemistry
Direct ELISA

Background

SMAGP (small transmembrane and glycosylated protein) is a 25 kDa, type III transmembrane glycoprotein that participates in epithelial cell polarity. Rat SMAGP is 97 amino acids (aa) in length and contains no signal sequence. The N-terminal 34 amino acids constitute the extracellular domain and show O-linked glycosylation. The C-terminal 42 amino acids (# 56 - 97) make up the cytoplasmic region. SMAGP is likely involved in cell adhesion and communication. Relocation of SMAGP from the membrane to the cytosol is associated with tissue disorganization and metastatic transformation. Over the extracellular and cytoplasmic domains, rat SMAGP shares 96% and 66% aa sequence identity with mouse and human SMAGP, respectively.

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant rat SMAGP (rrSMAGP; aa 1 - 34 and aa 56 - 97; Accession # Q7TPF1; joined by a linker peptide). Rat SMAGP specific IgG was purified by rat SMAGP 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 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/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 has been selected for its ability to recognize rat SMAGP in the applications listed below. In ELISAs and Western blots, this antibody shows approximately 40% cross-reactivity with rhSMAGP.

Applications

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect rat SMAGP. The detection limit for rrSMAGP is approximately 0.5 ng/lane under non-reducing and reducing conditions.

Immunohistochemistry - This antibody will detect rat SMAGP in tissues. The working dilution is 5 - 15 µg/mL. For chromogenic detection of labeling, use R&D Systems Cell and Tissue Staining Kits (CTS series).

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect rat SMAGP. The detection limit for rrSMAGP is approximately 0.2 ng/well.

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