

ORDERING INFORMATION

Catalog Number: AF4580

Lot Number: CAGA01

Size: 100 µg

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

Storage: -20° C

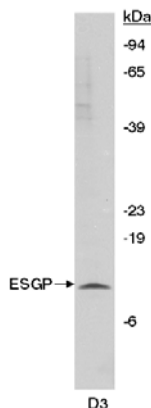
Reconstitution: sterile PBS

Specificity: mouse ESGP

Immunogen: *E. coli*-derived rmESGP (aa 24 - 84)

Ig Type: sheep IgG

Applications: Western blot
Immunocytochemistry
Direct ELISA



Detection of ESGP with AF4580. Cell lysates prepared from D3 mouse embryonic stem cells (D3) were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 0.1 µg/mL sheep anti-ESGP.

Background

ESGP (ES cell and germ cell-specific protein) is a presumably secreted polypeptide that belongs to no known protein family. It is expressed specifically in pluripotential cell types, and does not appear to be involved in differentiation. Mouse ESGP precursor is 84 amino acids (aa) in length. It contains a 25 aa signal sequence with a 59 aa mature segment. There are no N-linked glycosylation sites. One potential 108 aa variant shows an alternate start site 24 aa upstream of the standard start site.

Preparation

Produced in sheep immunized with purified, *E. coli*-derived, recombinant mouse ESGP (rmESGP; aa 24 - 84; Accession # Q2Q5T5). Mouse ESGP specific IgG was purified by mouse ESGP 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 mouse ESGP in the applications listed below.

Applications

Western blot - An antibody concentration of 0.1 - 1 µg/mL is recommended.

Immunocytochemistry - This antibody has been used at a concentration of 10 µg/mL to detect mouse ESGP in D3 mouse embryonic stem cells. Cells were fixed with PBS containing 4% paraformaldehyde for 20 minutes at room temperature and blocked with PBS containing 10% normal donkey serum, 0.1% Triton X-100, and 1% BSA for 45 minutes at room temperature. After blocking, cells were incubated with diluted primary antibody for 3 hours at room temperature followed by R&D Systems NorthernLights™ 557 donkey anti-sheep IgG (Catalog # NL010) at room temperature for 1 hour. Between each step, cells were washed with PBS containing 0.1% BSA.

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

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