Trefoil Factor 2 Human,
Sheep Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E. coli*
Host: Sheep

Cat. No.:
RD184159100 (0.1 mg)

Other names: Spasmolytic polypeptide, SP, Spasmolysin, TFF2, SML1

Research topic
Energy metabolism and body weight regulation, Immune Response, Infection and Inflammation, Oncology, Sepsis

Preparation
The antibody was raised in sheep by immunization with the recombinant Human Trefoil Factor 2.

Amino Acid Sequence
The immunization antigen (13,2 kDa - calculated) is a protein containing 116 AA of recombinant Human Trefoil Factor 2. N-Terminal His-tag, 10 extra AA (highlighted).

MKHHHHHHAS EKPSPCQCSR LSPHNRTNCG FPGITSDQCF DNGCCFDSSV TGVPWCFHPL PKQESDQCVM EVSDRRNCGY PGISPEECAS RKCCFSNFIF EVPWCFFPKS VEDCHY

Species Reactivity
Human
Not yet tested in other species.

Purification Method
Immunoaffinity chromatography on a column with immobilized recombinant Human Trefoil Factor 2.

Antibody Content
0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation
The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE**.

Reconstitution
Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping
At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Stability
The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C.Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration
See vial label.

Lot Number
See vial label.

Quality Control Test

Indirect ELISA - to determine titer of the antibody
SDS PAGE - to determine purity of the antibody

Applications

ELISA, Western blotting

Introduction to the Molecule

Trefoil factor 2 (TFF2) (PSP - pancreatic spasmolytic polypeptide) is a small secreted protein with a molecular weight of 12 kDa. It belongs to the TFF protein family that is characterized by a clover leaf-like disulphide structure named the TFF domain, which is created by 6 cysteines forming three intramolecular bonds. TFF2 contains two trefoil domains and has a very compact structure which may account for its extremely high resistance against the harsh environment in the gastrointestinal tract. The most abundant expression of TFFs is found in GI tract (especially in stomach, colon and pancreas), where they are co-localised with mucins. TFF2 is usually co-localised with MUC6 and probably mediates mucin cross-linking and stabilization of the mucin layer as do the other members of the TFF family. A study examining people with Crohn´s disease and inflammatory bowel disease showed that TFF2 level in serum is increased during the inflammatory state. Another study found that TFF2 levels are high in septic patients and that the level correlates with prognosis of the septic state. High expression of TFF2 was also found in skeletal muscle, liver, heart, spleen, thymus, lymph nodes and bone marrow. The exact function of TFF2 has not yet been revealed, but there is an evidence that it is connected with modulation of immune response (TFF2 deficient mice revealed significant change in expression of several genes involved in MHC class I antigen presentation), allergy and asthma (upregulation of TFF2 by diverse antigens). High levels of TFF2 in serum were also found in patients with prostate and other types of cancer (breast, colon and ovarian tumors) but its prognostic value has not yet been proved.

Note

This product is for research use only.

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