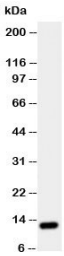
TFF1 Antibody for Rat / Rat Trefoil Factor 1 Antibody (R30775)

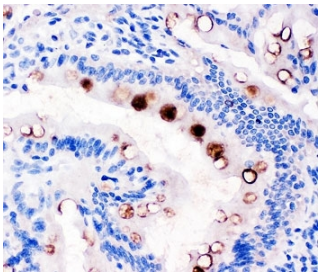
Catalog No.	Formulation	Size
R30775	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	Q08423
Localization	Cytoplasmic, secreted
Applications	Western Blot : 0.5-1ug/ml IHC (FFPE) : 0.5-1ug/ml
Limitations	This TFF1 antibody is available for research use only.



TFF1 Antibody for Rat. Western blot analysis of rat stomach tissue lysate using TFF1 Antibody for Rat. Lane 1: rat stomach lysate. A band is detected at approximately 12 kDa, consistent with the predicted molecular weight of Trefoil factor 1 (TFF1). The detected band corresponds to the small secreted trefoil peptide expressed in gastric mucosal epithelium, aligning with the known enrichment of TFF1 in rat stomach tissue where it contributes to mucosal protection and epithelial repair.



TFF1 Antibody for Rat. Immunohistochemical analysis of Trefoil factor 1 (TFF1) in rat intestine tissue using TFF1 Antibody for Rat. Tissue sections show HRP-DAB brown cytoplasmic staining in epithelial cells lining intestinal glandular structures, while surrounding stromal components remain largely negative. Hematoxylin counterstain highlights nuclei (blue). The observed epithelial staining pattern is consistent with expression of the secreted trefoil peptide TFF1 in mucosal epithelial cells involved in gastrointestinal barrier protection and epithelial repair.

Description

Trefoil factor 1 (TFF1) is a small secreted epithelial peptide encoded by the TFF1 gene and a member of the trefoil factor family involved in mucosal protection and epithelial repair in the gastrointestinal tract. The protein is strongly expressed in mucus-secreting epithelial cells of the stomach, particularly within gastric foveolar epithelium where it contributes to stabilization of the protective mucin layer covering the gastric mucosa. TFF1 Antibody for Rat enables detection of rat Trefoil factor 1 protein in experimental models studying gastric epithelial biology and mucosal repair mechanisms. TFF1 antibody, also referred to as Trefoil factor 1 antibody or pS2 antibody in the literature, targets a protein widely used as a marker of epithelial differentiation and mucosal barrier maintenance.

In rat tissues, Trefoil factor 1 expression is most commonly associated with gastric mucosal epithelium. Rat stomach tissue typically demonstrates strong expression of TFF1 in mucus-producing epithelial cells lining the gastric surface and glandular structures. Because rodent models are frequently used to study gastric injury, mucosal regeneration, and inflammatory responses in the gastrointestinal tract, detection of TFF1 expression in rat gastric epithelium provides a useful method for examining epithelial repair pathways and mucosal barrier function. Rat Trefoil factor 1 antibody detection is therefore commonly used in experimental studies investigating gastric physiology and epithelial protection mechanisms.

One useful feature of species-focused antibody pages is the ability to clearly identify relevant experimental model systems. In biomedical research literature, rat models are widely used to study gastric mucosal injury, ulcer healing, and epithelial regeneration. Because TFF1 participates in epithelial restitution and mucus barrier stability, monitoring rat TFF1 expression can provide insight into the cellular responses that occur during gastric tissue repair. Including species-specific terminology such as rat TFF1, rat Trefoil factor 1, and rat stomach epithelium within the antibody description helps align antibody information with the types of experimental systems most frequently used in gastrointestinal research.

TFF1 is also historically known as the estrogen inducible secretory protein pS2, first identified in breast carcinoma cells. While much of the early research focused on hormone-responsive human breast cancer models, the conserved biology of trefoil family peptides has also been investigated in rodent systems. Rat models are commonly used to examine epithelial barrier function, gastric injury responses, and regulation of secretory peptides in the gastrointestinal tract. These experimental systems have helped clarify the biological role of trefoil peptides in maintaining epithelial integrity during physiological stress and inflammatory conditions.

TFF1 Antibody for Rat recognizes Trefoil factor 1 protein and supports research applications investigating gastric mucosal biology, epithelial differentiation, and gastrointestinal epithelial repair in rat experimental models. Detection of rat TFF1 expression can assist studies focused on gastric epithelial function, mucosal barrier regulation, and the cellular responses associated with epithelial injury and regeneration.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the TFF1 Antibody for Rat may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids CCFDDSVRGFPWCF were used as the immunogen for this TFF1 Antibody for Rat.

Storage

After reconstitution, the TFF1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Trefoil factor 1, pS2, Breast cancer associated protein pS2, Trefoil factor family peptide 1