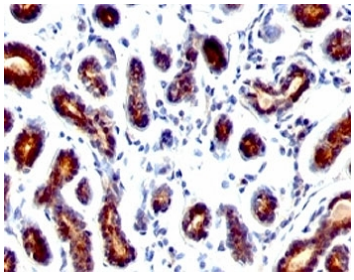
TFF1 Antibody Mouse Monoclonal Clone TFF1/1091 / pS2 Antibody [clone TFF1/1091] (V2880)

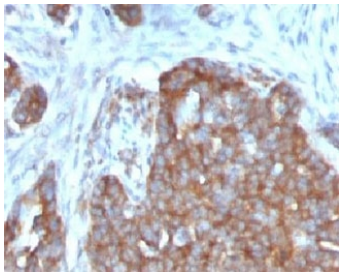
Catalog No.	Formulation	Size
V2880-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2880-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2880SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2880IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	TFF1/1091
Purity	Protein G affinity chromatography
UniProt	P04155
Localization	Cytoplasmic, secreted
Applications	Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This TFF1 antibody is available for research use only.



TFF1 Antibody Mouse Monoclonal Clone TFF1/1091. Immunohistochemistry analysis of Trefoil factor 1 (TFF1) in formalin-fixed, paraffin-embedded human breast carcinoma tissue using TFF1 Antibody Mouse Monoclonal Clone TFF1/1091. Tumor epithelial cells show HRP-DAB brown cytoplasmic staining consistent with expression of the estrogen regulated secretory peptide TFF1 (pS2). Hematoxylin counterstain highlights nuclei (blue).



TFF1 Antibody Mouse Monoclonal Clone TFF1/1091. Immunohistochemistry analysis of Trefoil factor 1 (TFF1) in formalin-fixed, paraffin-embedded human ovarian carcinoma tissue using TFF1 Antibody Mouse Monoclonal Clone TFF1/1091. Tumor epithelial cells demonstrate HRP-DAB brown cytoplasmic staining consistent with expression of the estrogen regulated secretory peptide TFF1 (pS2). Hematoxylin counterstain highlights nuclei (blue).

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 Mouse Monoclonal Clone TFF1/1091 recognizes Trefoil factor 1 protein and supports detection of TFF1 expression in epithelial tissues and experimental models used to study mucosal biology and epithelial differentiation. 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 gastric epithelial lineage and hormone-responsive epithelial tumors.

The protein was originally identified in breast carcinoma cells as the estrogen inducible secretory peptide pS2. Expression of TFF1 is closely associated with estrogen receptor signaling pathways and is frequently detected in hormone-responsive breast cancer cells. Because of this relationship, pS2 antibody detection has been widely used in studies examining estrogen-regulated gene expression and breast tumor biology. Expression of TFF1 in breast cancer cell lines such as MCF7 reflects the regulatory influence of estrogen signaling on secretory protein production within epithelial tumor cells.

In addition to its role in breast cancer biology, TFF1 plays an important physiological role in maintaining gastrointestinal epithelial integrity. The protein is secreted by gastric epithelial cells into the mucin layer where it interacts with mucins and other extracellular components to support stability of the mucosal barrier. Trefoil factor peptides contain a characteristic trefoil domain stabilized by disulfide bonds that allows them to remain structurally stable in the protease-rich environment of the gastrointestinal lumen. These structural properties enable TFF1 to participate in epithelial restitution processes that promote rapid repair of damaged mucosal surfaces following injury or inflammation.

TFF1 expression patterns are frequently used to investigate epithelial differentiation and mucosal barrier biology. Strong expression is typically observed in gastric epithelial cells while expression in most other tissues is more limited. Alterations in TFF1 expression have also been investigated in studies of gastric tumorigenesis and epithelial transformation, highlighting the role of this trefoil family peptide in maintaining normal epithelial homeostasis.

TFF1 Antibody Mouse Monoclonal Clone TFF1/1091 supports research examining Trefoil factor 1 expression in epithelial tissues and tumor cell models. Detection of TFF1 protein allows investigators to study gastric epithelial biology, mucosal barrier regulation, and estrogen regulated signaling pathways associated with epithelial tumor biology.

Application Notes

Optimal dilution of the TFF1 Antibody Mouse Monoclonal Clone TFF1/1091 should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A C-terminus peptide was used as the immunogen for the TFF1 antibody.

Storage

Store the TFF1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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