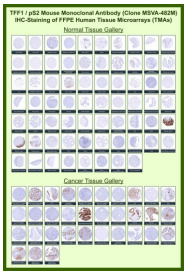
Trefoil Factor 1 Antibody for IHC / TFF1 Immunohistochemistry Antibody [clone MSVA-482M] (V6118)

Catalog No.	Formulation	Size
V6118-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6118-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant | MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	MSVA-482M
UniProt	P04155
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1:100-1:200
Limitations	This Trefoil Factor 1 Antibody for IHC / TFF1 Immunohistochemistry Antibody antibody is available for research use only.



Trefoil Factor 1 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Trefoil factor 1 / TFF1 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using mouse monoclonal antibody clone MSVA-482M. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong cytoplasmic localization in gastric epithelial cells, particularly within mucus-secreting foveolar epithelium of the stomach, while most other normal tissues show minimal to absent staining. Within tumor tissue microarrays, cytoplasmic positivity is observed in subsets of epithelial tumors, including breast carcinoma and selected gastrointestinal malignancies, whereas many other tumor types remain negative. Evaluation across large TMA panels enables direct comparison of TFF1 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported Trefoil factor 1 expression profiles in the Human Protein Atlas and support its role in gastric epithelial function and mucosal protection.

Description

Trefoil factor 1 (TFF1) is a secreted epithelial peptide encoded by the TFF1 gene and a member of the trefoil factor family that contributes to mucosal protection and epithelial repair within the gastrointestinal tract. The protein is predominantly localized to the cytoplasm and secretory granules of mucus-producing epithelial cells in the stomach, especially within gastric foveolar epithelium. Trefoil Factor 1 Antibody for IHC / TFF1 Immunohistochemistry Antibody (clone MSVA-482M) is designed for detection of TFF1 protein expression in formalin-fixed, paraffin-embedded tissues using immunohistochemistry, enabling visualization of epithelial staining patterns associated with this gastric secretory peptide. 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 differentiation and hormone-responsive epithelial tumors.

In immunohistochemistry studies, TFF1 expression is most commonly detected as cytoplasmic staining within mucus-secreting epithelial cells of the stomach. Gastric tissue sections typically demonstrate strong staining in the surface epithelium and foveolar glands, reflecting the protein's secretion into the protective mucus layer that coats the gastric mucosa. Because this staining pattern is highly characteristic of gastric epithelial differentiation, TFF1 antibody detection is frequently used in histological and pathological investigations of gastric tissue organization and epithelial lineage markers. Tissue microarray (TMA) analysis further supports these observations, as gastric cores within multi-tissue arrays consistently demonstrate strong epithelial staining compared with the minimal or absent signal seen in most other normal tissues.

Tissue microarray immunohistochemistry also provides an efficient method to evaluate TFF1 expression across many tissue types simultaneously. In large human TMA panels containing dozens of normal organs, TFF1 staining is largely restricted to gastric epithelium and certain mucin-producing epithelial compartments. This restricted distribution highlights the protein's specialized role in maintaining the integrity of the gastric mucosal barrier. Because TMAs allow side-by-side comparison of multiple tissues under identical staining conditions, they are commonly used to confirm the tissue specificity of epithelial markers such as TFF1 and to evaluate antibody performance in immunohistochemical applications.

TFF1 has also been widely studied in the context of breast cancer biology. The protein was originally identified as an estrogen-inducible secretory peptide known as pS2 in breast carcinoma cells. In immunohistochemistry analyses, TFF1 expression is frequently detected in subsets of estrogen receptor positive breast carcinomas, where cytoplasmic staining may be observed within tumor epithelial cells. TMA-based cancer profiling studies similarly demonstrate that TFF1 expression is present in a subset of epithelial tumors, particularly those influenced by hormone signaling pathways, while many other tumor types show little or no staining. These patterns highlight the usefulness of TFF1 antibody staining in studies examining hormone-regulated gene expression and epithelial tumor differentiation.

Trefoil Factor 1 Antibody for IHC / TFF1 Immunohistochemistry Antibody (clone MSVA-482M) enables visualization of TFF1 protein localization in tissue sections and supports immunohistochemistry analysis of epithelial differentiation, gastric mucosal biology, and hormone-responsive tumors. The ability to evaluate staining patterns across multi-tissue arrays, including normal and cancer TMAs, provides valuable insight into tissue-specific expression and disease-associated changes in epithelial cells.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the Trefoil Factor 1 Antibody for IHC / TFF1 Immunohistochemistry Antibody should be determined by the researcher.

2. This TFF1/Trefoil factor 1 antibody is recombinantly produced by expression in CHO cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 1-84) of human TFF1 protein (exact sequence is proprietary) was used as the immunogen for the Trefoil Factor 1 Antibody for IHC.

Storage

TFF1/Trefoil factor 1 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

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

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