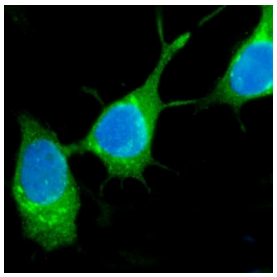
Estrogen Inducible Protein pS2 Antibody for IF / TFF1 Immunofluorescence Antibody (RQ6909)

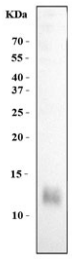
Catalog No.	Formulation	Size
RQ6909	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P04155
Localization	Cytoplasmic, secreted
Applications	Western blot: 1-2ug/ml Immunofluorescence (FFPE): 5ug/ml
Limitations	This Estrogen Inducible Protein pS2 antibody is available for research use only.



Estrogen Inducible Protein pS2 Antibody for IF. Immunofluorescence analysis of Trefoil factor 1 (TFF1) in FFPE human MCF7 breast cancer cells using Estrogen Inducible Protein pS2 Antibody for IF. Cells show cytoplasmic green fluorescence consistent with intracellular localization of the secreted TFF1 protein in epithelial tumor cells. Nuclei are counterstained with DAPI (blue). Antigen retrieval was performed by steaming sections in pH6 citrate buffer for 20 min prior to immunofluorescence staining.



Western blot testing of human MCF7 cell lysate with Estrogen Inducible Protein pS2 antibody. Predicted molecular weight ~12 kDa.

Description

Trefoil factor 1 (TFF1) is a secreted epithelial peptide encoded by the TFF1 gene and a member of the trefoil factor family involved in mucosal protection and epithelial repair within the gastrointestinal tract. The protein is most strongly expressed in mucus-secreting epithelial cells of the stomach, particularly within gastric foveolar epithelium, where it contributes to maintenance of the protective mucin barrier. Estrogen Inducible Protein pS2 Antibody for IF enables visualization of this protein using immunofluorescence microscopy, allowing researchers to examine intracellular localization and fluorescence distribution of TFF1 within epithelial cells. 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 estrogen-regulated gene expression.

Immunofluorescence microscopy provides a powerful approach for visualizing the cellular localization of TFF1 at the single-cell level. In IF imaging experiments, TFF1 typically appears as cytoplasmic fluorescence within epithelial cells, reflecting its synthesis and trafficking through the secretory pathway. Fluorescent staining often presents as diffuse or punctate cytoplasmic signal corresponding to vesicles and intracellular compartments associated with peptide secretion. These fluorescence patterns allow researchers to directly observe intracellular distribution of TFF1 and evaluate protein localization within intact cells using fluorescence microscopy.

The protein was originally identified in breast carcinoma cells as the estrogen inducible secretory peptide pS2. Expression of pS2 is closely linked to estrogen receptor signaling pathways in breast epithelial cells and hormone-responsive tumors. Immunofluorescence studies of breast cancer cell lines such as MCF7 frequently demonstrate cytoplasmic fluorescence corresponding to TFF1 expression within tumor epithelial cells. Visualization of pS2 fluorescence signal in cultured cells provides a useful method for studying estrogen-regulated gene expression and epithelial tumor cell biology using fluorescence imaging techniques.

Immunofluorescence analysis also allows TFF1 localization to be examined in combination with other cellular markers using multi-channel fluorescence microscopy. Co-staining experiments can evaluate the spatial relationship between TFF1-containing vesicles and structures such as the cytoskeleton, Golgi apparatus, or nuclei. Fluorescence microscopy therefore enables detailed imaging of epithelial cell organization while simultaneously revealing intracellular distribution of secreted proteins such as TFF1. These multi-color IF approaches are widely used to analyze epithelial differentiation and secretory protein trafficking within cultured cells.

Estrogen Inducible Protein pS2 Antibody for IF supports immunofluorescence-based visualization of Trefoil factor 1 expression and intracellular distribution in epithelial cell models and breast cancer cells. Detection of cytoplasmic fluorescence associated with secretory vesicles provides a clear method for studying TFF1 localization, epithelial cell architecture, and hormone-responsive signaling pathways using fluorescence microscopy.

Application Notes

Optimal dilution of the Estrogen Inducible Protein pS2 Antibody for IF should be determined by the researcher.

Immunogen

Amino acids FYPNTIDVPPEEECEF from the human protein were used as the immunogen for the Estrogen Inducible Protein pS2 Antibody for IF.

Storage

After reconstitution, the Estrogen Inducible Protein pS2 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, TFF1, pS2, Breast cancer associated protein pS2, Trefoil factor family peptide 1

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