

ITF (D-13): sc-83338

BACKGROUND

Trefoil peptides are protease resistant molecules secreted throughout the gut that play a role in mucosal healing. Trefoil peptides contain three intrachain disulfide bonds, forming the trefoil motif, or P-domain. ITF (intestinal trefoil factor) is expressed in the epithelial mucosal layer of the small intestine and colon, brain and pituitary. SP (also known as pancreatic trefoil factor 2 or pancreatic spasmodic polypeptide) is an inhibitor of spasmodic activity and gastric acid secretion. Human SP is expressed exclusively in normal stomach epithelium and unlike pS2, it is not expressed in breast carcinoma. Both SP and ITF are predominantly found in gastrointestinal tissues, and are upregulated around areas of epithelial damage and in meta- and neoplasia. The genes which encode pS2, SP and ITF are clustered in human chromosome 21q22.3.

REFERENCES

1. Tomasetto, C., et al. 1990. hSP, the domain-duplicated homolog of pS2 protein, is co-expressed with pS2 in stomach but not in breast carcinoma. *EMBO J.* 9: 407-414.
2. Podolsky, D.K., et al. 1993. Identification of human intestinal trefoil factor. Goblet cell-specific expression of a peptide targeted for apical secretion. *J. Biol. Chem.* 268: 6694-6702.
3. Gott, P., et al. 1996. Human trefoil peptides: genomic structure in 21q22.3 and coordinated expression. *Eur. J. Hum. Genet.* 4: 308-315.
4. Probst, J.C., et al. 1996. Human intestinal trefoil factor is expressed in human hypothalamus and pituitary: evidence for a novel neuropeptide. *FASEB J.* 10: 1518-1523.
5. Thim, L. 1997. Trefoil peptides: from structure to function. *Cell. Mol. Life Sci.* 53: 888-903.

CHROMOSOMAL LOCATION

Genetic locus: TFF3 (human) mapping to 21q22.3.

SOURCE

ITF (D-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ITF of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

ITF (D-13) is recommended for detection of ITF of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ITF (D-13) is also recommended for detection of ITF in additional species, including equine, bovine and porcine.

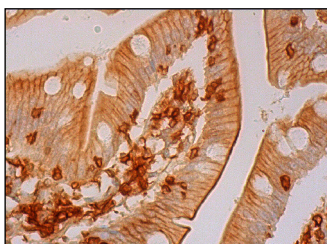
Suitable for use as control antibody for ITF siRNA (h): sc-39813, ITF shRNA Plasmid (h): sc-39813-SH and ITF shRNA (h) Lentiviral Particles: sc-39813-V.

Molecular Weight of ITF: 9 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



ITF (D-13): sc-83338. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing membrane and cytoplasmic staining of glandular cells and interstitial cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
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Guaranteed

Try **ITF (B-1): sc-398651** or **ITF (H-425): sc-81954**, our highly recommended monoclonal alternatives to ITF (D-13).