

ITF (A-20): sc-18272

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

- 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.
- 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.
- Gott, P., et al. 1996. Human trefoil peptides: genomic structure in 21q22.3 and coordinated expression. *Eur. J. Hum. Genet.* 4: 308-315.
- 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.
- Thim, L. 1997. Trefoil peptides: from structure to function. *Cell Mol. Life Sci.* 53: 888-903.
- Murphy, M.S. 1998. Growth factors and the gastrointestinal tract. *Nutrition* 14: 771-774.

CHROMOSOMAL LOCATION

Genetic locus: Tff3 (mouse) mapping to 17 A3.3.

SOURCE

ITF (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ITF of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18272 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.

APPLICATIONS

ITF (A-20) is recommended for detection of ITF of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ITF siRNA (m): sc-39814, ITF shRNA Plasmid (m): sc-39814-SH and ITF shRNA (m) Lentiviral Particles: sc-39814-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 donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Albert, E.J., et al. 2008. Aging in the absence of TLR2 is associated with reduced IFN-γ responses in the large intestine and increased severity of induced colitis. *J. Leukoc. Biol.* 83: 833-842.

RESEARCH USE

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

PROTOCOLS

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



Try **ITF (B-1): sc-398651**, our highly recommended monoclonal alternative to ITF (A-20).