

TFF1/pS2 Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M	Endogenous	13	Rabbit	#P04155	7031

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

TFF1/pS2 Antibody recognizes endogenous levels of total TFF1/pS2 protein. This antibody reacts with precursor and mature forms of TFF1/pS2. Based upon sequence alignment, this antibody is not predicted to cross-react with either TFF2 or TFF3.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val33 of human TFF1/pS2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The trefoil factor (TFF) family of proteins (TFF1/pS2, TFF2, and TFF3) are a group of highly conserved, secreted polypeptides that are expressed by mucus-secreting cells of the gastrointestinal tract. Within the gastrointestinal tract, TFFs display both common and distinct expression patterns (1). Collectively, the TFF family of proteins play a prominent role in the protection and repair of the mucous epithelia lining the gastrointestinal tract through their interactions with mucins (2). TFFs have been shown to regulate a number of cellular processes such as migration, apoptosis, and proliferation. In humans, dysregulated expression of TFFs has been observed in inflammatory bowel diseases as well as tumors of the breast, colon, lung, and stomach (2).

TFF1 is expressed predominantly by the gastric epithelia, in the upper portion of the glandular pits, and is highly expressed in some adenocarcinomas such as breast cancer (1,3,4). In the context of breast cancer, TFF1 is highly expressed in estrogen receptor-positive tumors. Indeed, TFF1 expression is directly regulated by estrogen receptor- α (4). In the stomach, secreted TFF1 is a component of the protective mucous layer. TFF1 expression is strongly induced after mucosal injury (5) and is involved in stomach ontogenesis and maintenance of the integrity of the mucosa (1,3). Research studies have shown frequent loss of TFF1 expression in more than two-thirds of gastric carcinomas resulting from mutation-independent mechanisms (6-8).

Background References

1. Madsen, J. et al. (2007) *J Histochem Cytochem* 55, 505-13.
2. Taupin, D. and Podolsky, D.K. (2003) *Nat Rev Mol Cell Biol* 4, 721-32.
3. Ribieras, S. et al. (1998) *Biochim Biophys Acta* 1378, F61-77.
4. Corte, M.D. et al. (2006) *Breast Cancer Res Treat* 96, 63-72.
5. Taupin, D. et al. (2001) *Lab Invest* 81, 397-408.
6. Carvalho, R. et al. (2002) *Lab Invest* 82, 1319-26.
7. Katoh, M. (2003) *Int J Mol Med* 12, 3-9.
8. McChesney, P.A. et al. (2006) *Cancer Res* 66, 1346-53.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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