

PP11 (Q-14): sc-168998

BACKGROUND

PP11 (placental protein 11), also known as ENDOU (endonuclease, polyU-specific), protein endoU or uridylate-specific endoribonuclease, is a 410 amino acid protein that contains 2 somatomedin-B (SMB) domains and belongs to the ENDOU family. Typical of secretory proteins, PP11 also contains one N-terminal hydrophobic region of 18 amino acids. Encoded by a gene that maps to human chromosome 12q13.11, PP11 exists as three alternatively spliced isoforms. Exhibiting placenta-specific localization, PP11 participates in protease activity and functions as an endoribonuclease. PP11 cleaves single-stranded RNAs at uridylates and releases products with a 2'-3'-cyclic phosphate termini. PP11 is a possible oncology marker for various forms of cancer, including ovarian, breast, testicular and gastric cancers, and may be useful as a marker in monitoring patients with malignant diseases.

REFERENCES

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2. Inaba, N., et al. 1980. Ectopic synthesis of pregnancy specific β 1-glycoprotein (SP1) and placental specific tissue proteins (PP5, PP10, PP11, PP12) in nontrophoblastic malignant tumours. Possible markers in oncology. *Klin. Wochenschr.* 58: 789-791.
3. Inaba, N., et al. 1982. Immunohistochemical detection of pregnancy-specific protein (SP1) and placenta-specific tissue proteins (PP5, PP10, PP11 and PP12) in ovarian adenocarcinomas. *Oncodev. Biol. Med.* 3: 379-389.
4. Bachmann, M., et al. 1983. Association of a polyuridylate-specific endoribonuclease with small nuclear ribonucleo-proteins which had been isolated by affinity chromatography using antibodies from a patient with systemic lupus erythematosus. *Eur. J. Biochem.* 136: 447-451.
5. Grundmann, U., et al. 1990. Cloning and expression of a cDNA encoding human placental protein 11, a putative serine protease with diagnostic significance as a tumor marker. *DNA Cell Biol.* 9: 243-250.
6. Jenne, D. 1991. Homology of placental protein 11 and pea seed albumin 2 with vitronectin. *Biochem. Biophys. Res. Commun.* 176: 1000-1006.
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CHROMOSOMAL LOCATION

Genetic locus: ENDOU (human) mapping to 12q13.11; Endou (mouse) mapping to 15 F1.

SOURCE

PP11 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PP11 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-168998 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PP11 (Q-14) is recommended for detection of PP11 of mouse, rat and human 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 PP11 siRNA (h): sc-95700, PP11 siRNA (m): sc-152395, PP11 shRNA Plasmid (h): sc-95700-SH, PP11 shRNA Plasmid (m): sc-152395-SH, PP11 shRNA (h) Lentiviral Particles: sc-95700-V and PP11 shRNA (m) Lentiviral Particles: sc-152395-V.

Molecular Weight of PP11 isoform 1: 47 kDa.

Molecular Weight of PP11 isoform 2: 42 kDa.

Molecular Weight of PP11 isoform 3: 40 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.

STORAGE

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

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.