



## WFDC5 (S-17): sc-86016

### BACKGROUND

Peptidases are enzymes that are responsible for hydrolyzing peptide bonds of polypeptide chains during protein catabolism. Protease inhibitors are important peptidase regulators which halt enzymatic function. Serpins, the largest family of inhibitors, act through irreversible covalent linkage to the target peptidase, thereby competitively blocking the active site. WFDC5 (WAP four-disulfide core domain protein 5), also known as PRG5 or WAP1, is a secreted serpin inhibitor. WFDC5 contains two WAP motifs and is induced by p53/TP53. Two isoforms of WFDC5, at 224 and 123 amino acids in length, are encoded by a gene on human chromosome 20. WFDC5 is highly expressed in trachea, tongue and salivary glands. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

### REFERENCES

1. Lundwall, A. and Clauss, A. 2002. Identification of a novel protease inhibitor gene that is highly expressed in the prostate. *Biochem. Biophys. Res. Commun.* 290: 452-456.
2. Clauss, A., Lilja, H. and Lundwall, A. 2002. A locus on human chromosome 20 contains several genes expressing protease inhibitor domains with homology to whey acidic protein. *Biochem. J.* 368: 233-242.
3. Ville, D., Kaminska, A., Bahi-Buisson, N., Biraben, A., Plouin, P., Telvi, L., Dulac, O. and Chiron, C. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.
4. Joó, J.G., Beke, A., Tóth-Pál, E., Hargitai, B., Szigeti, Z., Papp, C. and Papp, Z. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. *J. Reprod. Med.* 51: 209-212.
5. Kazantsev, A.G. 2007. Cellular pathways leading to neuronal dysfunction and degeneration. *Drug News Perspect.* 20: 501-509.
6. Elghezal, H., Hannachi, H., Mougou, S., Kammoun, H., Triki, C. and Saad, A. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. *Eur J Med Genet.* 50: 441-445.

### CHROMOSOMAL LOCATION

Genetic locus: WFDC5 (human) mapping to 20q13.12.

### SOURCE

WFDC5 (S-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of WFDC5 of human origin.

### 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.

### 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, sc-86016 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

WFDC5 (S-17) is recommended for detection of WFDC5 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other WFDC family members.

Suitable for use as control antibody for WFDC5 siRNA (h): sc-76922, WFDC5 shRNA Plasmid (h): sc-76922-SH and WFDC5 shRNA (h) Lentiviral Particles: sc-76922-V.

Molecular Weight of WFDC5 isoforms: 24/13 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.