



## HE4 (P-12): sc-27575

### BACKGROUND

HE4 (whey acidic protein (WAP)-type four-disulfide core-2, WFDC2) is a small secretory protein that may influence sperm maturation. HE4 gene expression is high in pulmonary epithelial cells and in some ovarian cancers. HE4 protein has a WAP motif that contains eight cysteines forming four disulfide bonds at the core of the protein. The WAP motif functions as a protease inhibitor in many of the family members that contain them.

### REFERENCES

1. Kirchoff, C., et al. 1991. A major human epididymis-specific cDNA encodes a protein with sequence homology to extracellular proteinase inhibitors. *Biol. Reprod.* 45: 350-357.
2. Bingle, L., et al. 2002. The putative ovarian tumour marker gene HE4 (WFDC2), is expressed in normal tissues and undergoes complex alternative splicing to yield multiple protein isoforms. *Oncogene* 21: 2768-2773.
3. Hellstrom, I., et al. 2003. The HE4 (WFDC2) protein is a biomarker for ovarian carcinoma. *Cancer Res.* 63: 3695-3700.
4. Hagiwara, K., et al. 2003. Mouse SWAM1 and SWAM2 are antibacterial proteins composed of a single whey acidic protein motif. *J. Immunol.* 170: 1973-1979.
5. Urban, N., et al. 2003. Ovarian cancer screening. *Hematol. Oncol. Clin. North Am.* 17: 989-1005.
6. Berry, N.B., et al. 2004. Transcriptional targeting in ovarian cancer cells using the human epididymis protein 4 promoter. *Gynecol. Oncol.* 92: 896-904.
7. LocusLink Report (LocusID: 10406). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### CHROMOSOMAL LOCATION

Genetic locus: WFDC2 (human) mapping to 20q12-q13.2; Wfdc2 (mouse) mapping to 2 H3.

### SOURCE

HE4 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HE4 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-27575 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

HE4 (P-12) is recommended for detection of precursor and mature HE4 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 HE4 siRNA (m): sc-45443.

### 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.

### RESEARCH USE

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