

**HE4 Polyclonal Antibody (SIGNET)  
Catalog Number: SIG-3731  
Available Size: 0.1 mL, 1.0 mL, L1  
6mL, L2 6mL**

**Description:** Polyclonal Antibody against human epididymis protein 4 (HE4) (also known as WFDC2 and WAP5.)  
(Formerly Signet Catalog Nos: 731-01, 731-16 L1 predilute, 731-26 L2 predilute)

**Intended Use: \*\*Research Use Only (RUO)\*\***

This product is sold for laboratory research use only, not for human or in-vivo use.

**Form:** Affinity Purified Antibody (in PBS + 0.1% NaN<sub>3</sub> + 1% BSA)

**Host:** Rabbit

**Species Reactivity:** Human

**Specificity:** HE4 is a small whey-acidic polypeptide (WAP) normally expressed in the male epididymis (Kirchhoff et al., 1991) and female reproductive tract (fallopian tubes, endometrium, endocervix). It is secreted as an N-glycosylated protein and has homology with some protease inhibitors including elafin, SLPI, and eppin. HE4 is overexpressed by serous and endometrioid ovarian carcinomas (Schummer et al., 1999; Schaner et al., 2003; Drapkin et al., 2005) and is secreted as an N-glycosylated protein (Drapkin et al., 2005) that can be detected in the bloodstream of women with ovarian cancer (Hellstrom et al., 2003).

This antibody was developed against human mature HE4 fused to glutathione s-transferase (GST-HE4) produced in E. coli.

**Concentrated Format:**

SIG-3731-100 [0.1 mL]

SIG-3731-1000 [1 mL]

Our concentrated format may be used with any detection system with final working dilutions optimized by the user.

**Prediluted Formats:**

SIG-3731-16 [6 mL]

SIG-3731-26 [6 mL] is ready to use with Biotin based detection systems such as Signet's USA Ultrastreptavidin Detection (SIG-32250).

**Uses:** This antibody is effective in immunoblotting and immunohistochemistry (IHC).

**Suggested Working Dilution:** The optimal working dilution should be determined for each specific assay condition.

- **Western blot:** 1:100\*
- **IHC:** ≥1:40 for Biotin based detection systems such as Signet's USA Ultrastreptavidin Detection (SIG-32250).

**Tissue Sections:** Formalin-fixed, paraffin-embedded tissues.

**Pretreatment:** For optimal staining, the sections should be pretreated with an antigen unmasking solution such as Sodium Citrate Buffer (Cat No. SIG-31932).

**Incubation:** 60 minutes at room temperature.

**Notes:** \*Predicted MW = 25kDa

Positive tissue (human): Normal epididymis or ovarian tumor

**Storage:** Store between 2-8°C.

**References:** Drapkin R, von Horsten HH, Lin Y, Mok SC, Crum CP, Welch WR, Hecht JL.

Human epididymis protein 4 (HE4) is a secreted glycoprotein that is overexpressed by serous and endometrioid ovarian carcinomas. *Cancer Res* 65:2162-2169, 2005.

Hellstrom I, Raycraft J, Hayden-Ledbetter M, Ledbetter JA, Schummer M, McIntosh M, Drescher C, Urban N, Hellstrom KE. The HE4 (WFDC2) protein is a biomarker for ovarian carcinoma. *Cancer Res* 63:3695-3700, 2003.

Schaner ME, Ross DT, Ciaravino G, Sorlie T, Troyanskaya O, Diehn M, Wang YC, Duran GE, Sikic TL, Caldeira S, Skomedal H, Tu IP, Hernandez-Boussard T, Johnson SW, O'Dwyer PJ, Fero MJ, Kristensen GB, Borresen-Dale AL, Hastie T, Tibshirani R, van de Rijn M, Teng NN, Longacre TA, Botstein D, Brown PO, Sikic BI. Gene expression patterns in ovarian carcinomas. *Mol Biol Cell* 14:4376-4386, 2003.

Schummer M, Ng WV, Bumgarner RE, Nelson PS, Schummer B, Bednarski DW, Hassell L, Baldwin RL, Karlan BY, Hood L. Comparative hybridization of an array of 21,500 ovarian cDNAs for the discovery of genes overexpressed in ovarian carcinomas. *Gene* 238(2):375-385, 1999.

Kirchhoff C, Habben I, Ivell R, Krull N. A major human epididymis-specific cDNA encodes a protein with sequence homology to extracellular proteinase inhibitors. *Biol Reprod* 45:350-357, 1991.

**Warranty/Conditions:** Covance products may not be resold or modified for resale without prior written approval.

#### Related Products:

- Ultrastreptavidin (USA) Horseradish peroxidase (HRP) 50 Test, Multi-Species, DAB

Detection Kit (SIGNET)

Catalog Number SIG-32250

- Sodium Citrate H.I.E.R., 1x (SIGNET)  
Catalog Number SIG-31932

**Product Revision Date:** 1/19/2009