

Rabbit anti-Human HE4 Polyclonal Antibody | anti-HE4 antibody

HE4 Antibody Affinity Purified

CATALOG # AAA75683	HOST Rabbit	REACTIVITY Human	APPLICATIONS ELISA, Western Blot
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PRODUCT SYNONYMS

HE4; Polyclonal Antibody; HE4 Antibody Affinity Purified; EDDM4; epididymal protein 4; Epididymal secretory protein E4; Epididymis specific whey acidic protein type four disulfide core; HE 4; Major epididymis specific protein E4; Putative protease inhibitor WAP5; WAP domain containing protein HE4; WAP four disulfide core domain 2; WAP5; WFDC2 antibody; anti-HE4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Purity/Purification	Immobilized antigen affinity chromatography
Form/Format	Affinity Purified Immunoglobins
Concentration	0.75 mg/ml IgG in antibody stabilization buffer (varies by lot)
Sequence Length	124
Applicable Applications for anti-HE4 antibody	ELISA, WB (Western Blot)
Immunogen	Synthetic peptide taken within amino acid region 50-100 on human WAP four-disulfide core domain protein 2.
Expression	male reproductive system; regions of the respiratory tract; nasopharynx; number of tumors cells lines, such ovarian, colon, breast, lung and renal cells lines.Initially described as being exclusively transcribed in the epididymis
Determinant	N-epitope
Molecular Function	Aspartic protease inhibitor, Protease inhibitor, Serine protease inhibitor, Thiol protease inhibitor
Structure	Homotrimer; disulfide-linked
Subcellular Location	Extracellular space; Extracellular vesicular exosome; Secreted
Preparation and Storage	Store -20°C for long term storage

IMAGES

Application Data

The HE4-selective antibodies were generated against a synthetic peptide taken within amino acid region 50-100 on human WAP four-disulfide core domain protein 2. The HE4 antibodies were affinity purified over immobilized antigen based affinity chromatography. The purified immunoglobulins are stabilized in antibody stabilization buffer.

WFDC2 is expressed in some epithelial cells of the upper airways as well as in mucous cells and ducts of sub-mucosal glands. No staining was seen in the peripheral lung tissue. Intense staining is found in major salivary glands and in minor glands of the nose, sinuses, posterior tongue and tonsil. Studies with the related protein Secretory Leucocyte Protease Inhibitor (SLPI) show that although both proteins are expressed in similar tissues, the precise cellular localization differs. Significant increases in expression and localization of WFDC2 are seen in patients with Cystic Fibrosis (3). B6P22 protein is a 124 amino acids (18 kDa) protein. B6P22 protein has sequence homology to extracellular protease inhibitor and is localized on human chromosome 20. The B6P22 protein is a secreted glycoprotein (pH 4-4) that is over expressed in serous and endometrioid ovarian carcinomas (4). There are at least 5 named variants (HE4-V1 to HE4-V5) expressed as a result of alternate splicing and they serve as endopeptidase inhibitors.

Application Data

Overview:

The whey acidic protein (WAP) domain is a conserved motif, containing eight cysteines found in a characteristic 4-disulfide core arrangement, that is present in a number of otherwise unrelated proteins. One of these proteins, which contains two WAP domains, is HE4 (also known as WFDC2). HE4 was originally described as an epididymis specific protein, but more recently suggested to be a putative serum tumor marker for ovarian cancer and a presumptive role in natural immunity. The HE4 protein expression is not only confined to epididymis but is expressed in a number of normal human tissues outside the reproductive system, including regions of the respiratory tract and nasopharynx and in a subset of lung tumor cell lines. HE4 gene expression was highest in normal human trachea and salivary gland, and to a lesser extent, lung, prostate, pituitary gland, thyroid, and kidney. Highest level of expression of B6P22 was observed in adenocarcinomas of the lung, and occasional breast, transitional cell and pancreatic carcinomas (1). The WFDC2 gene undergoes extensive splicing in malignant tissues that gives rise to five WAP domain containing iso forms (2).

Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-HE4 antibody	Affinity Purified WAP domain containing protein HE4-V3 Antibody N-epitope
Product Categories/Family for anti-HE4 antibody	Primary Antibodies; Cell Biology; Tags and Cell Markers; HE4 Antibody

NCBI AND UNIPROT INFORMATION

NCBI GI #	56699495
NCBI GeneID	10406
NCBI Accession #	NP_006094.3
NCBI GenBank Nucleotide #	NM_006103.3
UniProt Accession #	Q14508; Q6IB27; Q8WXV9; Q8WXW0; Q8WXW1; Q8WXW2; Q96KJ1; A2A2A5; A2A2A6; A6PVD5
NCBI Official Full Name	WAP four-disulfide core domain protein 2
NCBI Official Synonym Full Names	WAP four-disulfide core domain 2
NCBI Official Symbol	WFDC2
NCBI Official Synonym Symbols	HE4; WAP5; EDDM4; dJ461P17.6
NCBI Protein Information	WAP four-disulfide core domain protein 2
UniProt Protein Name	WAP four-disulfide core domain protein 2
UniProt Gene Name	WFDC2
UniProt Synonym Gene Names	HE4; WAP5
UniProt Entry Name	WFDC2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/he4-antibody-western-blot-elisa/75683>