

Product datasheet for **AP22455PU-N**

HE4 (WFDC2) (29-43) Goat Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	Peptide ELISA: Limit Dlution: 1/16000. Western Blot: 0.2-1.0 µg/ml. In transfected HEK293 transiently expressing full-length Human WFDC2 (myc and DYKDDDDK tagged), a band of approx. 25kDa was observed. No bands were observed in mock-transfected HEK293 and the same band was observed using anti-myc tag antibody.
Reactivity:	Canine, Human
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Peptide with sequence from the internal region of the protein sequence according to NP_006094.3.
Specificity:	Recognizes WFDC2 / WAP5 (29-43).
Formulation:	Tris saline, pH~7.3 with 0.02% Sodium Azide and 0.5% BSA State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Ammonium Sulphate Precipitation followed by antigen Affinity Chromatography using the immunizing peptide
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	WAP four-disulfide core domain 2
Database Link:	Entrez Gene 10406 Human Q14508



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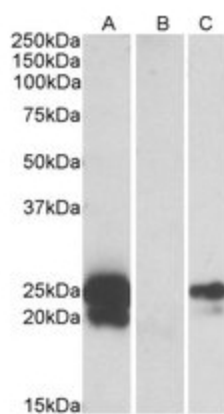
Background:

The whey acidic protein (WAP) domain is a conserved motif, containing eight cysteines found in a characteristic 4-disulphide 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), originally described as an epididymis specific protein but more recently suggested to be a putative serum tumour 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 ESPE4 was observed in adenocarcinomas of the lung, and occasional breast, transitional cell and pancreatic carcinomas. The WFDC2 gene undergoes extensive splicing in malignant tissues that give rise to five WAP domain containing isoforms.

WFDC2 is expressed in some epithelial cells of the upper airways as well as in mucous cells and ducts of submucosal glands. No staining was seen in peripheral lung. 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 Leukocyte 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. ESPE2 protein is a 124 amino acids (15 kDa) protein. ESPE4 protein has sequence homology to extracellular proteinase inhibitor and is localized on human chromosome 20. The ESPE4 protein is a secreted glycoprotein (Asn-44) that is over expressed in serous and endometrioid ovarian carcinomas. 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.

Synonyms:

HE4

Product images:

HEK293 lysate (10 ug protein in RIPA buffer) overexpressing Human WFDC2 with C-terminal MYC tag probed with (1 ug/ml) in Lane A and probed with anti-MYC Tag (1/1000) in lane C. Mock-transfected HEK293 probed with (1mg/ml) in Lane B. Primary incubations were for 1 hour. Detected by chemiluminescence.