

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                 |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human HE4/WFDC2 in direct ELISAs.                                                             |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                  |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                             |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant human HE4/WFDC2<br>Thr28-Phe124<br>Accession # Q14508 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                       |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                          |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                       |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>ELISA</b>               | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunoprecipitation</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

HE4 (also WFDC2; WAP Four-disulfide core domain protein 2) is a secreted, 25 kDa glycoprotein member of the Whey Acidic Protein family of molecules. It is expressed by a wide variety of epithelial cells, including respiratory epithelium, salivary gland mucous cells, breast duct epithelium, distal tubule renal epithelium, and epididymal epithelium. It is believed to play a role in innate defense, and/or function as a protease inhibitor (perhaps for neutrophil elastase). Although ovarian cuboidal epithelium does not express HE4, ovarian epithelial tumors do, leading to the suggestion that HE4 could represent a tumor marker for ovarian cancer. Mature human HE4 is 94 amino acids (aa) in length. It contains two WAP domains that likely mediate antiprotease and/or antimicrobial activity (aa 31-73 and 74-123). There are four potential splice variants. One shows a deletion of aa 27-74, while three others show aa substitutions: 28 aa for aa 75-124, 23 aa for aa 1-74, and 10 aa for aa 71-124. Over aa 31-124, human HE4 shares 63% aa identity with an extended (144 amino acid) mouse form of mature HE4.

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