

**HE2 beta 2 Subunit Antibodies**

Cat. # HE2B21-P	<b>Human HE2B2</b> control/ blocking peptide # 1	<b>SIZE:</b> 100 ug
Cat. #HE2B21-A	<b>Rabbit Anti-Human HE2B2 IgG # 1</b> (aff pure)	<b>SIZE:</b> 100 ug

**HE2** is a human epididymis specific sperm binding secretory protein expressed by SPAG11 gene (chromosome 8p23-p22), a 103aa protein adopts a typical antigenic pattern with a subacrosomal equatorial distribution on the sperm head, this localization of HE2 with Beta-defensins in the epithelial defense system of epididymal duct have developed mechanism to fight ascending infections, including local production of these antimicrobial peptides and proteins.

HE2 represents 3 major isoforms, HE2-alpha, HE2-beta and HE2-gamma, all variants have a common 71 residue N terminus but various C termini, these variations at C termini is due to frame shifting deletions.

**HE2 beta:** The 2 beta isoforms encode proteins of 133 aa (HE2 beta1) and 108aa (HE2 beta2). HE2 B1 contains the 6 cysteine beta-defensin motif located on exon 4 of SPAG11 gene, its shows antimicrobial activity and plays a role in host defense in the genital tract. HE2B2 play a role in both contraception and treatment of sexually transmitted diseases. The B2 contains a potential glycosaminoglycan attachment site at amino acid 102.

**Source of Antigen and Antibodies:**

<b>Antigen</b>	21aa peptide from Human HE2-beta ( <b>Designated HE2B21-P or control peptide</b> ) conjugated to KLH epitope location ~ C-terminal
<b>Antibody host/type</b>	Rabbit, Polyclonal IgG (Cat# <b>HE2B21-A</b> ), purified over antigen-Agarose
<b>Secondary Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>Negative Control Ab</b>	Non-immune rabbit IgG (Cat # 20009-1) to be used as -ve control for ELISA, WB, IHC etc.

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**

100 ug/100 ul solution lyophilized powder  
Supplied in Buffer: PBS pH 7.5,  
**Reconstitute powder in PBS at 1 mg/ml.**

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20°C and powder at 4°C or -20°C.

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder

**Recommended Usage**

**Western Blotting** (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique.

**ELISA** (1:10K-1:100K; using 50-100 ng of control peptide/well).

**Histochemistry & Immunofluorescence.** We recommend the use of affinity purified antibody at 10-30 ug/ml in formaldehyde fixed, paraffin-embedded tissues.

**Specificity & Cross-reactivity**

The human HE2B21 control peptide is 100% conserved in Chimp and 85% in monkey HE2-beta, no significant homology detected in other species. Antibody cross-reactivity in various species has not been studied. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (see detailed protocol at the web site).

**General References:**

(1) Hans Henning von Horsten et al (2002) Biol of reproduction 67, 804-813; Hamil, K.G et al (2000) Endocrinology 141 (3), 1245-1253; Peng Li et al (2001) Science 291, 1783-1785; Katherine G Hamil et al (2000) Endocrinology 141, 1245-1253.

*\*This product is for In vitro research use only.*

**Related material available from ADI**

Antibodies and Peptides: HE2 (α, β, and γ isoforms).

BIN 1B antibodies

HE2B21-A-P 71217J