





# Human $\beta$ -defensins 2 ELISA Kit

Product Code	CSB-E13201h	
Abbreviation	DEFB4	
Target Name	defensin, beta 4	
Uniprot No.	O15263	
Alias	DEFB-2, DEFB102, DEFB2, HBD-2, SAP1, defensin, beta 2 skin-antimicrobial peptide 1 $ \beta$ -defensins 2  beta-defensins 2	
Product Type	ELISA Kit	
Immunogen Species	Homo sapiens (Human)	
Sample Types	serum, urine, cell culture supernates, tissue homogenates	
<b>Detection Range</b>	62.5 pg/mL-4000 pg/mL	
Sensitivity	15.6 pg/mL	
Assay Time	1-5h	
Sample Volume	50-100ul	
<b>Detection Wavelength</b>	450 nm	
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.	
Research Area	Microbiology	
Quality Control	A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm.  An incubator can provide stable incubation conditions up to 37°C±5°C.  Centrifuge  Vortex  Squirt bottle, manifold dispenser, or automated microplate washer  Absorbent paper for blotting the microtiter plate 50-300ul multi-channel micropipette  Pipette tips  Single-channel micropipette with different ranges 100ml and 500ml graduated cylinders  Deionized or distilled water  Timer  Test tubes for dilution	
Gene Names	DEFB4A	
Tag Info	quantitative	
Protein Description	Sandwich	
Component	A micro ELISA plate The 96-well plate has been pre-coated with an anti-human DEFB4 antibody. This dismountable microplate can be divided into 12 x 8 strip plates.	

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Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve.

One vial Biotin-labeled DEFB4 antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody.

One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic. One vial Biotin-antibody Diluent (15 ml/bottle) --- Dilute the Biotin-antibody. One vial HRP-avidin Diluent (15 ml/bottle) --- Dilute the HRP-avidin solution. One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.

One vial Wash Buffer (25 x concentrate) (20 ml/bottle) --- Wash away unbound or free substances.

One vial TMB Substrate (10 ml/bottle) --- Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.

One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.

Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation. An instruction manual

### Description

This Human DEFB4 ELISA Kit was designed for the quantitative measurement of Human DEFB4 protein in serum, urine, cell culture supernates, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 62.5 pg/mL-4000 pg/mL and the sensitivity is 15.6 pg/mL.

#### **Target Details**

Defensins form a family of microbicidal and cytotoxic peptides made by neutrophils. Members of the defensin family are highly similar in protein sequence. This gene encodes defensin, beta 4, an antibiotic peptide which is locally regulated by inflammation.

#### **Product Precision**

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

### Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human  $\beta$ -defensins 2 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	87
	Range %	81-92
1:2	Average %	94
	Range %	90-100
1:4	Average %	98
	Range %	91-110
1:8	Average %	91
	Range %	85-98

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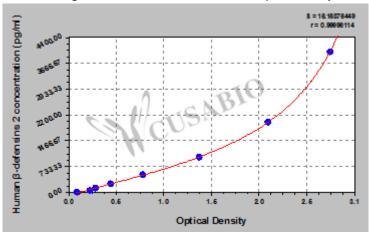
### Recovery

The recovery of human β-defensins 2 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type Average % Recovery Range Serum (n=5) 93 89-98

## **Typical**

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml OD1 OD2 Average Corrected 4000 2.821 2.752 2.787 2.689 2000 2.182 2.076 2.129 2.031 1000 1.438 1.364 1.401 1.303 500 0.802 0.793 0.798 0.700 250 0.471 0.437 0.454 0.356 125 0.302 0.290 0.296 0.198 62.5 0.243 0.229 0.236 0.138

0.099 0.097 0.098

**Msds** 

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