#### **Product Datasheet**

# Human Keratin, type II cuticular Hb1 (KRT81) ELISA Kit



Catalog No: #EK10171

Package Size: #EK10171-1 48T #EK10171-2 96T

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## Description

Product Name	Human Keratin, type II cuticular Hb1 (KRT81) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Other Names	HB1; Hb-1; KRTHB1; MLN137; ghHkb1; hHAKB2-1; hard keratin; type II; 1 keratin; hair; basic; 1
Accession No.	Q14533
Uniprot	Q14533
GeneID	3887;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5%
	within the expiration date under appropriate storage condition.
	The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days,
	and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China
	Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage
	at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

## **Application Details**

Detect Range:0.156-10 ng/mL	
Sensitivity:0.053 ng/mL	
Sample Type:Serum, Plasma, Other biological fluids	
Sample Volume: 1-200 μL	
Assay Time:1-4.5h	
Detection wavelength:450 nm	

## **Product Description**

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate KRT81 in samples. An antibody specific for KRT81 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyKRT81 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for KRT81 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of KRT81 bound in the initial step. The color development is stopped and the intensity of the color is measured. Product Overview: KRT81 is a member of the keratin gene family. As a type II hair keratin, it is a basic protein which heterodimerizes with type I keratins to form hair and nails. The predicted 495-amino acid HB1 protein has an 88-amino acid C-terminal domain. The amino acid sequences of human and sheep HB1 are 90% identical. Northern blot analysis detected HB1 transcripts in human scalp but not unhaired breast epidermis.

HB1 is more closely related to HB3 and HB6 than to HB5. In situ hybridization studies demonstrated that type II keratin genes are sequentially activated in the hair follicle in the following order: HB5--(HB1, HB3)--HB6. Both HB1 and HB3 mRNA syntheses begin 10 to 15 cell layers above the apex of the dermal papilla and end abruptly in the middle of the cortex.

Note: This product is for in vitro research use only