

## Recombinant Human $\beta$ -Defensin 4A/DEFB4A Protein

Catalog No. PKSH033266

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

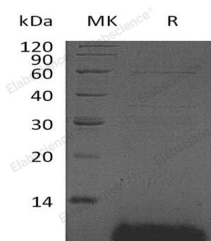
### Description

<b>Synonyms</b>	Beta-Defensin 4A;Beta-Defensin 2;BD-2;hBD-2;Defensin;Beta 2;Skin-Antimicrobial Peptide 1;SAP1;DEFB4A;DEFB102;DEFB2;DEFB4;DEFB4B
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Gly24-Pro64
<b>Accession</b>	O15263
<b>Calculated Molecular Weight</b>	4.3 kDa
<b>Observed molecular weight</b>	9 kDa
<b>Tag</b>	None
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



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### Background

$\beta$ -Defensin 4A is a membrane-active cationic peptide that functions in inflammation and innate immune responses. There

### For Research Use Only

are at least 30  $\beta$ -Defensins, which are distinguished from  $\alpha$ -Defensins by the connectivity pattern of their three intermolecular disulfide bonds. Members of the Defensin family are highly similar in protein sequence. This gene encodes Defensin, DEFB4, which has broad-spectrum antimicrobial activity and may play an important role in innate epithelial defense. They are highly expressed in skin and tonsils, and to a lesser extent in trachea, uterus, kidney, thymus, adenoid, pharynx and tongue.  $\beta$ -Defensin 4A has low expression in salivary gland, bone marrow, colon, stomach, polyp and larynx. No expression in small intestine. The 45 amino acid mature human BD3 shares 38% and 33% amino acid sequence identity with mouse and rat BD3, respectively.