

## PrimeGene Technical Data Sheet

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| <b>Catalog Number:</b>          | 109-05   |
| <b>Source:</b>                  | <i>Escherichia coli</i> .  |
| <b>Molecular Weight:</b>        | Approximately 5.8 kDa, a single non-glycosylated polypeptide chain containing 51 amino acids.  |
| <b>Quantity:</b>                | 5µg/20µg/100µg   |
| <b>AA Sequence:</b>             | GLDFSQPFPS GEFAVCECK LGRGKCRKEC LENEKPDGNC RNLFLCCRQR I  |
| <b>Purity:</b>                  | > 95 % by SDS-PAGE and HPLC analyses.  |
| <b>Biological Activity:</b>     | Testing in progress.   |
| <b>Physical Appearance:</b>     | Sterile Filtered White lyophilized (freeze-dried) powder.  |
| <b>Formulation:</b>             | Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.   |
| <b>Endotoxin:</b>               | Less than 1.0 EU/µg of rHuBD-5 as determined by LAL method.  |
| <b>Reconstitution:</b>          | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions. |
| <b>Shipping:</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  |
| <b>Stability &amp; Storage:</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>                                 |
| <b>Usage:</b>                   | This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>   |

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### ***Human Beta-defensin 5***

Defensins (alpha & beta) are cationic peptides with a broad spectrum of antimicrobial activity that comprise an important arm of the innate immune system. The alpha-defensins are distinguished from the beta-defensins by the pairing of their three disulfide bonds. Six human beta-defensins have been identified, BD-1, BD-2, BD-3, BD-4, BD-5 and BD-6. Beta-defensins are expressed on some leukocytes and at epithelial surfaces. In addition to their direct antimicrobial activities, they can act as chemoattractants towards immature dendritic cells and memory T cells. Beta-defensins contain a six-cysteine motif that forms three intramolecular disulfide bonds. Recombinant human BD-5 is a 5.8 kDa protein containing 51 amino acid residues.