# Recombinant VIP protein (His tag)

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| **Catalog Number** | 539662 |
| **Synonyms** | Peptide histidine valine 42; PHV-42; Peptide histidine methioninamide 27; PHM-27; VIP; Vasoactive intestinal polypeptide |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P01282 |
| **Molecular Weight** | Predictes a molecular mass of 14.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band. |

## Product Information

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| **Sequence Region** | 55-170 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >86%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 55-170 aa (P01282) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human VIP Peptides Fragment (55-170) is a high-purity, stable protein fragment derived from the vasoactive intestinal peptide precursor. This 116-amino acid recombinant product encompasses key bioactive regions, including VIP, PHM-27, and PHV-42, making it an ideal tool for studying neuropeptide signaling, cardiovascular regulation, and immune modulation in research applications.<br>The full-length VIP precursor protein in Homo sapiens is a multifunctional neuropeptide that undergoes proteolytic cleavage to yield several bioactive peptides, including vasoactive intestinal peptide (VIP), PHM-27, and PHV-42. VIP acts through VIP receptors (VPR1 and VPR2), playing critical roles in neuroprotection, immune modulation, vasodilation, blood pressure regulation, and smooth muscle relaxation in various tissues. PHM-27 and PHV-42 also contribute to vasodilation, with PHM-27 serving as a potent agonist of the calcitonin receptor (CALCR). As a secreted protein, these peptides function extracellularly, influencing diverse physiological processes in the central nervous system and peripheral tissues. This recombinant fragment provides a soluble, stable unit for investigating these pathways in structural and biochemical studies. |