# Recombinant COMD5 protein (His tag)

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| **Catalog Number** | 545884 |
| **Synonyms** | Hypertension-related calcium-regulated gene protein; HCaRG |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q9GZQ3 |
| **Molecular Weight** | Predictes a molecular mass of 26.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band. |

## Product Information

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| **Sequence Region** | 2-224 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, 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 2-224 aa (Q9GZQ3) 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 COMMD5 Protein Fragment (residues 2-224) is a high-purity, functional protein designed for studying the COMM domain's role in endosomal recycling, cell proliferation regulation, and NF-kappa-B signaling. This fragment fully encompasses the COMM domain, making it an ideal tool for domain-specific functional assays and mechanistic investigations.<br>COMMD5 (COMM domain-containing protein 5) is a scaffold protein essential for the commander complex, which mediates endosomal recycling of transmembrane cargos. It functions as part of both the CCC and retriever subcomplexes, contributing to cellular trafficking processes. Additionally, COMMD5 modulates cullin-RING E3 ubiquitin ligase activity, negatively regulates cell proliferation and G2/M phase transition via p53-independent pathways, and suppresses NF-kappa-B activation. The protein localizes to both the cytoplasm and nucleus, reflecting its diverse roles in cellular signaling and homeostasis. Its involvement in kidney proximal tubule morphogenesis further underscores its physiological relevance. |