# Recombinant PRD12 protein (His tag)

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| **Catalog Number** | 548242 |
| **Synonyms** | PR domain-containing protein 12 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q9H4Q4 |
| **Molecular Weight** | Predictes a molecular mass of 15.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band. |

## Product Information

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| **Sequence Region** | 82-203 |
| **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 82-203 aa (Q9H4Q4) 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 PRDM12 Protein Fragment (aa 82-203) – a high-purity, functional fragment encompassing the SET domain, designed for studying nociceptive neuron development and pain pathway regulation.<br>PRDM12 (PR domain zinc finger protein 12) is a transcriptional regulator essential for the development and function of nociceptive neurons. It directs neural crest cell progenitors toward the nociceptive lineage by initiating neurogenesis and activating key pro-neuronal transcription factors (e.g., NEUROD1, BRN3A, ISL1), while repressing non-nociceptor fates. In adults, PRDM12 maintains nociceptor excitability and gene expression, directly influencing responses to pain stimuli. The protein localizes to the nucleus, where it exerts its regulatory functions. The provided fragment (aa 82-203) contains the full SET domain, enabling targeted investigation of its role in epigenetic regulation and neuronal specification. |