# Recombinant ORC2 protein (His tag)

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| **Catalog Number** | 536037 |
| **Synonyms** | CeOrc2 |
| **Species** | Caenorhabditis elegans |
| **Expression System** | E. coli |
| **Accession** | Q21037 |
| **Gene ID** | 174676 |
| **Molecular Weight** | Predictes a molecular mass of 35.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band. |

## Product Information

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| **Sequence Region** | 141-430 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >88%, 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 141-430 aa (Q21037) 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 Origin recognition complex subunit 2 (CeOrc2) fragment (residues 141-430) from Caenorhabditis elegans, engineered for stability and solubility to support structural and biochemical studies of DNA replication initiation mechanisms.<br>Origin recognition complex subunit 2 (CeOrc2) is a key component of the origin recognition complex (ORC) in Caenorhabditis elegans, which binds to replication origins in an ATP-dependent manner. As part of ORC, it plays an essential role in assembling the pre-replication complex required for initiating DNA replication, though specific origin sequences remain uncharacterized. The protein is localized to the nucleus, underscoring its direct involvement in nuclear DNA replication processes. This fragment corresponds to a computationally optimized region selected for enhanced solubility and structural integrity, facilitating experimental investigations into ORC function. |