# Recombinant WEE2 protein (His tag)

| | |
|---|---|
| **Catalog Number** | 544352 |
| **Synonyms** | Wee1-like protein kinase 1B; Wee1B kinase |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P0C1S8 |
| **Molecular Weight** | Predictes a molecular mass of 37.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band. |

## Product Information

| | |
|---|---|
| **Sequence Region** | 205-521 |
| **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 205-521 aa (P0C1S8) were fused with 6His tag. |

## Storage & Handling

| | |
|---|---|
| **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

| | |
|---|---|
| **Description** | Recombinant Human WEE2 Kinase Fragment (aa 205-521) is a high-purity protein encompassing the complete protein kinase domain of Wee1-like protein kinase 2. This fragment serves as an essential tool for investigating kinase activity, substrate interactions, and regulatory mechanisms in meiosis and oocyte development.<br>Wee1-like protein kinase 2 (WEE2) is an oocyte-specific tyrosine kinase crucial for regulating meiosis in human oocytes. It maintains meiotic arrest during prophase I by phosphorylating CDK1 at Tyr-15, inhibiting CDK1 activity to prevent premature meiotic reentry. Additionally, WEE2 facilitates metaphase II exit during egg activation through CDK1 phosphorylation, ensuring proper meiotic exit and pronuclear formation. The protein is localized to the nucleus, where it executes its key regulatory functions in cell cycle control. |