# Recombinant PPM1L protein (His tag)

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| **Catalog Number** | 545143 |
| **Synonyms** | Protein phosphatase 1-like; Protein phosphatase 2C isoform epsilon; PP2C-epsilon |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q5SGD2 |
| **Molecular Weight** | Predictes a molecular mass of 37.66 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band. |

## Product Information

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| **Sequence Region** | 43-360 |
| **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 43-360 aa (Q5SGD2) 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 Protein Phosphatase 1L (PPM1L) Fragment (residues 43-360) is a high-purity protein encompassing the complete PPM-type phosphatase domain. This fragment serves as an essential tool for investigating the dephosphorylation mechanisms of key signaling kinases, such as MAP3K7/TAK1 and MAP3K5, in SAPK pathway regulation.<br>Protein Phosphatase 1L (PPM1L), encoded by the PPM1L gene, functions as a critical suppressor of stress-activated protein kinase (SAPK) signaling pathways. It achieves this by binding to and dephosphorylating MAP3K7/TAK1 and MAP3K5, thereby reducing the interaction between MAP3K7/TAK1 and downstream kinases MAP2K4 or MAP2K6. The full-length protein is localized to the membrane as a single-pass type I membrane protein, highlighting its role in membrane-associated signaling events. The provided fragment (residues 43-360) includes the functional PPM-type phosphatase domain (residues 92-351), enabling focused studies on its catalytic activity and regulatory functions. |