# Recombinant Human MAPK14 protein (His tag)

**Catalog No.** PDEH100394

***Note:*** Centrifuge before opening to ensure complete recovery of vial contents.

## Description

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| **Synonyms** | Mitogen-activated protein kinase 14;MAPK14;MAP kinase MXI2;MAX-interacting protein 2 |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Met 1-Ala 300 |
| **Accession** | Q16539 |
| **Calculated Molecular Weight** | 32.9 kDa |
| **Observed molecular weight** | 32 kDa |
| **Tag** | N-His & C-His |
| **Bioactivity** | Not validated for activity |

## Properties

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|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | Please contact us for more information. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4.<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis |

## Background

The p38 Mitogen-activated Protein Kinases (MAPKs) are a family of four related Ser/Thr kinases activated by proinflammatory cytokines and environmental stresses, such as UV irradiation and heat shock. Stress signals are delivered to this cascade by members of small GTPases of the Rho family (Rac, Rho, Cdc42). p38 MAPK is involved in the regulation of Hsp27 and MAPKAP-2 and several transcription factors including ATF2, STAT1, and indirectly CREB via activation of MSK1. The p38 MAPK protein also plays a role in cell differentiation, autophagy and apoptosis. Mkk3 and SEK can activate p38 MAPK by phosphorylation at Thr180 and Tyr182, which in turn activates the MAPKAP kinase 2 and regulating phosphorylation of ATF2, Mac and MEF2.



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