Recombinant Human MAPK13 protein (His Tag)

Catalog Number: PDEH101047



Description Species Human Mol Mass 34.5 kDa Accession 015264 Not validated for activity **Bio-activity Properties** > 95% as determined by reducing SDS-PAGE. Purity Endotoxin < 10 EU/mg of the protein as determined by the LAL method Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 Storage °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at $< -20^{\circ}$ C for 3 months. This product is provided as lyophilized powder which is shipped with ice packs. Shipping Formulation Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol. 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.

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

Background

The p38 family of mitogen-activated protein kinases (MAPK) includes p38 alpha (SAPK2a, CSBP), p38 beta (SAPK2b), p38 delta (SAPK4), and p38 gamma (SAPK3/ERK6). p38 alpha and p38 beta are widely expressed p38 isoforms that are involved in regulation of cell proliferation, differentiation, development, and response to stress. p38 delta, also known as MAPK13, is a regulator of differentiation-dependent gene expression in keratinocytes, and been as a regulator of surface epithelia differentiation and apoptosis. p38 delta protein is upregulated in Cholangiocarcinoma (CC) relative to hepatocellularcarcinoma (HCC) and to normal biliary tract tissues. p38 delta is important for motility and invasion of CC cells, suggesting that p38 delta may play an important role in CC metastasis. p38 delta is expressed in the epidermis, suggesting a role for p38 delta in regulating differentiation. p38 delta is the major p38 isoform driving suprabasal involucrin gene expression and that p38 delta directly regulates ERK1/2 activity via formation of a p38 delta-ERK1/2 complex. Recent emerging evidence suggests that the p38 stress MAPK pathway may function as a tumor suppressor through regulating Ras-dependent and-independent proliferation, transformation, invasion and cell death by isoform-specific mechanisms. p38 delta has important role in promoting cell proliferation and tumor development in epidermis and may have therapeutic implication for skin cancer.

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