

## Instruction manual FOR RESEARCH USE ONLY NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

## Recombinant Human p38 delta / MAPK13 Protein (GST tag)

Cat.NO.: TP06735

3th Edition

Synonyms:MAPK-13;MAPK13;p38delta;PRKM13;SAPK4

**Description:** 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 Rasdependent 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.

Form:PBS

Molecular Weight: 68.4 kDa

Sequences: Met 1-Leu 365

Purity:> 95% by HPLC

**Concentration:** 

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

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