

## ProQinase™ p38-alpha (non activated)

MAP kinase 14

Recombinant Human Protein Kinase

HGNC Symbol: MAPK14

Synonyms: MAPK14

Product No.: 0639-0000-1

Lot: 006

**Description:** Human p38-alpha, full length, amino acids M<sub>1</sub>-S<sub>360</sub> (as in NCBI/Protein entry NP\_001306.1), N-terminal HIS<sub>6</sub> fusion protein, expressed in E.coli

**Product identity:** p38-alpha Lot 006, was confirmed as p38-alpha with a p38-alpha specific Western blot

**Theoretical MW<sub>Fusion Protein</sub>:** 42,517 Da

**Expression:** E.coli

**Purification:** Immobilized Metal Affinity Chromatography

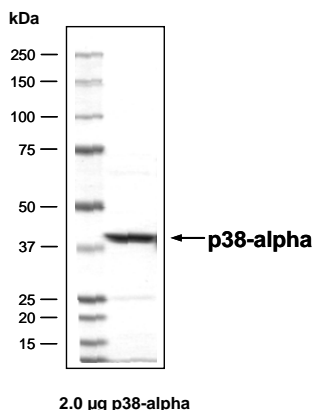
**Activation:** no activation

**Storage buffer:** 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 20% glycerol

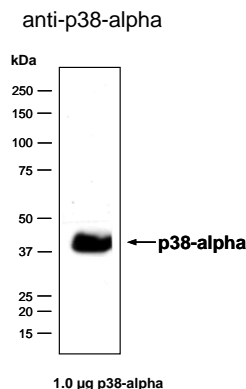
**Storage temperature:** -80°C  
Avoid repeated freeze-thaw cycles!

**Protein concentration:** 1.300 µg/µl  
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

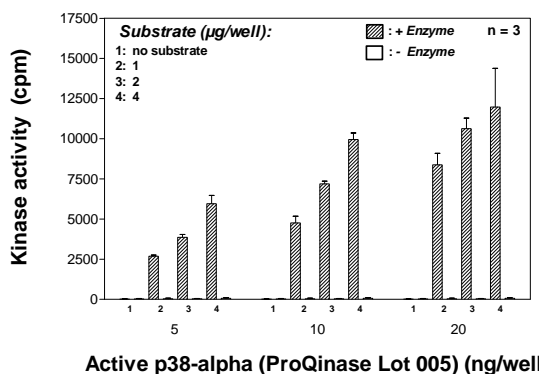
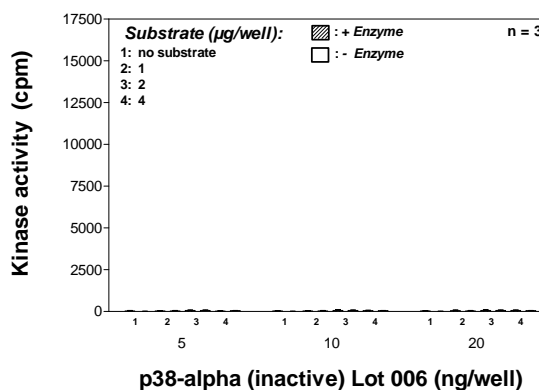
**p38-alpha Lot 006:**  
**Coomassie stain**



**p38-alpha Lot 006:**  
**Western Blot Analysis**



**Kinase activity p38-alpha (inactive) vs active p38-alpha:**



**Final assay concentrations:**

- 60 mM HEPES-NaOH, pH 7.5
- 3 mM MgCl<sub>2</sub>
- 3 mM MnCl<sub>2</sub>
- 3 µM Na-orthovanadate
- 1.2 mM DTT
- 50 µg / ml PEG<sub>20,000</sub>
- 1 µM ATP (690,000 cpm <sup>33</sup>P-γ-ATP)
- Substrate (variable): ATF2
- Recombinant p38-alpha (inactive) or active p38-alpha (variable)

**Assay:** <sup>33</sup>PanQinase® Assay

Recombinant Proteins

## ProQinase™ p38-alpha

Product No.: 0639-0000-1

p38-alpha Recombinant Fusion Protein Amino Acid Sequence									
1	M	HHHHHH	AMS	QERPTFYRQE	LNKTIWEVPE	RYQNLSPVGS	GAYGSVCAAF	DTKTGLRVAV	60
61	KKLSRPFQSI	IHAKRTYREL	RLLKHKMKHEN	VIGLLDVFTP	ARSLEEFNDV	YLVTHLMGAD		120	
121	LNNIVKCQKL	TDDHVQFLIY	QILRGLKYIH	SADIIHRDLK	PSNLAVNEDC	ELKILDFGLA		180	
181	RHTDDEMTGY	VATRWRAP	IMLNWMHYNQ	TVDIWSVSCI	MAELLTGRTL	FPGTDHINQL		240	
241	QQIMRLTGTP	PAYLINRMPS	HEARNYIQSL	TQMPKMNAN	VFIGANPLAV	DLLEKMLVLD		300	
301	SDKRITAAQA	LAHAYFAQYH	DPDDEPVADP	YDQSFESRDL	LIDEWKSLTY	DEVISFVPPP		360	
361	LDQEEMES							420	

1-218: GST **Red: HIS6-tag** **blue: p38-alpha**

p38-alpha wt <sup>1</sup> amino acid sequence							
1	MSQERPTFYR	QELNKTIWEV	PERYQNLSPV	GSGAYGSVCA	AFDTKTGLRV	AVKKLSRPFQ	60
61	SIIHAKRTYR	ELRLKHKMKH	ENVIGLLDVF	TPARSLEEFN	DVYLVTHLMG	ADLNNIVKCQ	120
121	KLTDHVVQFL	IYQILRGLKY	IHSADIIHRD	LKPSNLAVNE	DCELKILDFG	LARHTDDEMT	180
181	GYVATRWYRA	PEIMLNWMHY	NQTVDIWSVG	CIMAELLTGR	TLFPGTDHIN	QLQQIMRLTG	240
241	TPPAYLINRM	PSHEARNYIQ	SLTQMPKMNAN	ANVFIGANPL	AVDLLEKMLV	LDSDKRITAA	300
301	QALAHAYFAQ	YHDPDDEPVA	DPYDQSFESR	DLLIDEWKSL	TYDEVISFVP	PPLDQEEMES	360

**blue:** p38-alpha sequence expressed in fusionprotein

<sup>1</sup>NCBI/Protein accession number NP\_001306.1