

ERK2 (non activated)

extracellular regulated protein kinase 2

Recombinant Human Inactive Protein Kinase

Synonyms: MAPK1

Product No.: 0634-0000-1

Lot: 005

Description: Human ERK2, full length, amino acids M₁-S₃₆₀ (as in NCBI/Protein entry NP_002736.3), not activated, untagged, expressed in E.coli

Product identity: ERK2 Lot 005, was confirmed as ERK2 with a ERK2 specific Western blot

Theoretical MW_{Protein}: 41,762 Da

Expression: E. coli

Activation: No special measures were taken to activate ERK2 Lot 005

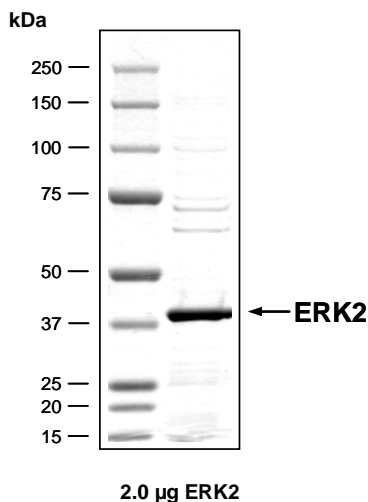
Purification: GST-Affinity Chromatography, followed by cleavage of GST-tag

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

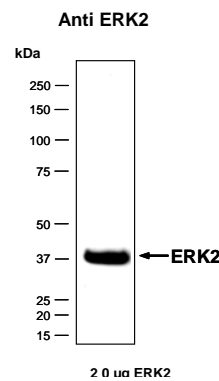
Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

Protein concentration: 0.137 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

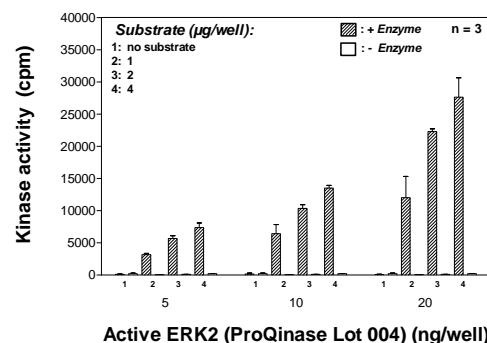
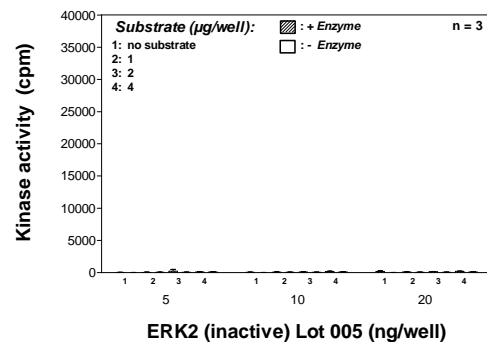
ERK2 Lot 005: Coomassie stain



ERK2 Lot 005: Western Blot Analysis



Kinase activity ERK2 (inactive) vs active ERK2:



Final assay concentrations:

- 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg / ml PEG_{20,000}
 - 1 µM ATP (610,000 cpm ³³P-γ-ATP)
 - Substrate (variable): RB-CTF
 - Recombinant ERK2 (inactive) or active ERK2 (variable)
- Assay:** ³³PanQinase® Assay

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CoA V1.0 ERK2_LOT005_V3.doc

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ERK2 Recombinant Fusion Protein Amino Acid Sequence								
1	GPLA	MAAAAA	AGAGPEMVRG	QVFDVGPRTY	NLSYIGEGAY	GMVCSAYDNV	NKVRVAIKKI	60
61	SPFEHQTYCQ	RTLREIKILL	RFRHENIIGI	NDIIRAPTIE	QMKDVYIVQD	LMETDLYKLL		120
121	KTQHLSNDHI	CYFLYQILRG	LKYIHSANVL	HRDLKPSNLL	LNTTCDLKIC	DFGLARVADP		180
181	DHDHTGFLTE	YVATRWYRAP	EIMLNSKGYT	KSIDIWSVGC	ILAEMLSNRP	IFPGKHYLDQ		240
241	LNHILGILGS	PSQEDLNCII	NLKARNYLLS	LPHKNKVPWN	RLFPNADSKA	LDLLDKMLTF		300
301	NPHKRIEVEQ	ALAHPLYEQY	YDPSDEPIAE	APFKFDMELD	DLPKEKLEL	IFEETARFQP		360
361	GYRS							420

blue: ERK2

ERK2 wt ¹ amino acid sequence							
1	MAAAAAAGAG	PEMVRGQVFD	VGPRYTNSLY	IGEGAYGMVC	SAYDNVNKVR	VAIKKISPFE	60
61	HQTYCQRTL	EIKILLRFRH	ENIIGINDII	RAPTIEQMKD	VYIVQDLMET	DLYKLLKTQH	120
121	LSNDHICYFL	YQILRGLKYI	HSANVLHRDL	KPSNLLLNTT	CDLKICDFGL	ARVADPDHDH	180
181	TGFLTEYVAT	RWYRAPEIML	NSKGYTKSID	IWSVGCILAE	MLSNRPIFPG	KHYLDQLNHI	240
241	LGILGSPSQE	DLNCIINLKA	RNYLLSLPHK	NKVPWNRLFP	NADSKALDLL	DKMLTFNPHK	300
301	RIEVEQALAH	PYLEQYYDPS	DEPIAEAPFK	FDMELDDLPK	EKLKELIFEE	TARFQPGYRS	360

blue: ERK2 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_002736.3