

ProQinase™ ERK7

mitogen-activated protein kinase 15

Recombinant Human Active Protein Kinase

HGNC Symbol: MAPK15

Synonyms: ERK8

Product No.: 1106-0000-2

Lot: 002

Description: Human ERK7, N-terminal fragment, amino acids M₁-R₃₅₄ (as in [NCBI/Protein](#) entry NP_620590.2), N-terminal 4xFLAG-tag sequence and C-terminal HIS₈-fusion protein, expressed in Sf9 insect cells

Product identity: ERK7 Lot 002, was confirmed as ERK7 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 46,156 Da

Expression host: Sf9 insect cells

Purification: Immobilized Metal Affinity Chromatography

Activation: in vitro auto activation

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

Storage temperature: -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.300 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

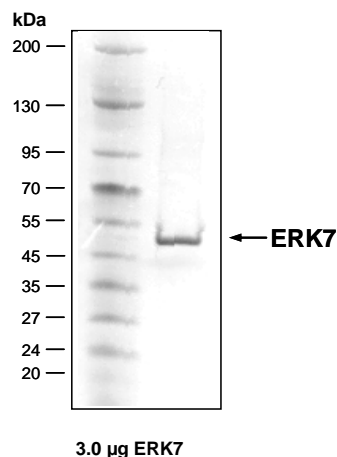
Biochemical Parameters:

Specific kinase activity (P_i transfer): 44 pmol/µg × min
ATP-K_M: 3.2 µM

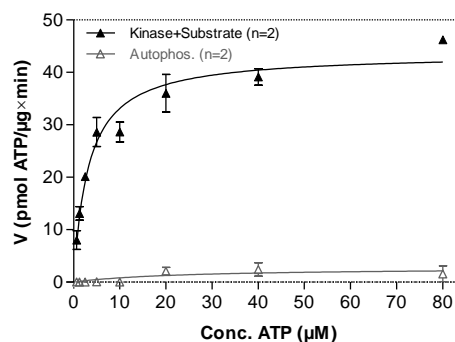
Additional assay technology:

ERK7 Lot 002 was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from Promega ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

ERK7 Lot 002: Coomassie stain



ERK7 Lot 002: Determination of V_{max} and K_M value for ATP



- Assay conditions:
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}
ATP (variable)
Substrate: RBER-CHKtide 200 µg/ml
Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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ERK7 Recombinant Fusion Protein Amino Acid Sequence							
1	MDYKDDDDKD	YKDDDDKDYK	DDDDKDYKDD	DDKSGGGS	MC TVVDPRIVRR	YLLRRQLGQG	60
61	AYGIVWKAVD	RRTGEVVAIK	KIFDAFRDKT	DAQRTFREIT	LLQEFGDHPN	IISLLDVIRA	120
121	ENDRDIYLVF	EFMDTDLNAV	IRKGGLQDV	HVRSIFYQLL	RATRFLHSGH	VVHRDQKPSN	180
181	VLLDANCTVK	LCDFGLARSL	GDLPEGPEEQ	AVTEYVATRW	YRAPEVLLSS	HRYTLGVDMW	240
241	SLGCILGEML	RGRPLFPGTS	TLHQLELILE	TIPPPSEEDL	LALGSGCRAS	VLHQLGSRPR	300
301	QTLDALLPPD	TSPEALDLLR	RLLVFAPDKR	LSATQALQHP	YVQRFHCPSD	EWAREADVPR	360
361	RAHEGVQLSV	PEYRSRVYQM	ILECGSSGT	SRKLLLE	HHHH HHHH		420

Pink: 4x FLAG-tag Red: HIS6-tag blue: ERK7 fragment

ERK7 wt ¹ Amino Acid Sequence							
1	MCTVVDPRIV	RRYLLRRQLG	QGAYGIVWKA	VDRRTGEVVA	IKKIFDAFRD	KTDAQRTFRE	60
61	ITLLQEFGDH	PNIIISLLDVI	RAENDRDIYL	VFEFMDTDLN	AVIRKGGLLQ	DVHVRSIFYQ	120
121	LLRATRFLHS	GHVVHRDQKP	SNVLLDANCT	VKLCDFGLAR	SLGDLPEGPE	DQAVTEYVAT	180
181	RWYRAPEVLL	SSHRYTLGVD	MWSLGCILGE	MLRGRPLFPG	TSTLHQLELI	LETIPPPSEE	240
241	DLLALGSGCR	ASVLHQLGSR	PRQTLDALLP	PDTSPALDL	LRLLLVFAPD	KRLSATQALQ	300
301	HPYVQRFHCP	SDEWAREADV	RPRAREGVQL	SVPEYRSRVY	QMILECGGSS	GTSREKGPEG	360
361	VSPSQAHLHK	PRADPQLPSR	TPVQGPRPRP	QSSPGHDPAE	HESPRAAKNV	PRQNSAPLLQ	420
421	TALLNGNERP	PGAKEAPPLT	LSLVKPSGRG	AAPSLTSQAA	AQVANQALIR	GDWNRGGGVR	480
481	VASVQQVPPR	LPPEARPGRR	MFSTSALQGA	QGGARALLGG	YSQAYGTVCH	SALGHLPLLE	540
541	GHHV						600

blue: ERK7 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_620590.2