

Certificate of Analysis



ELK1

ELK1, member of ETS oncogene family

Recombinant Protein Kinase Substrate

HGNC Symbol: ELK1

Synonyms: /

Product No.: 1211-0000-1

Lot: 003

Description: Human ELK1, full length, amino acids M₁-P₄₂₈ (as in NCBI/Protein entry NP_005220.2), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 cells

Theoretical MW_{Fusion Protein}: 73,163 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 1 mM DTT, 15 mM reduced glutathione, 10% glycerol

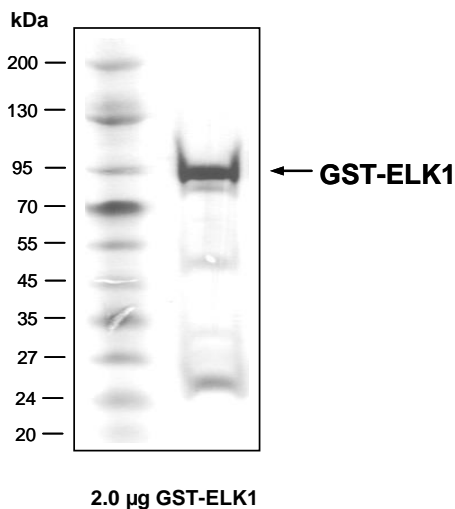
Storage temperature: -80°C

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!

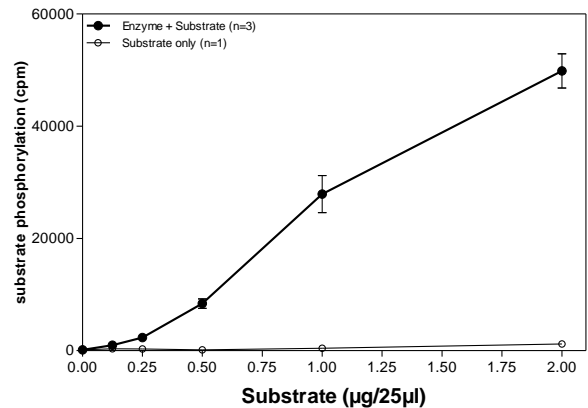
Protein concentration: 0.463 µg/µl

(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Coomassie stain:



Phosphorylation of ELK1 by the kinase ERK2 (Radiometric filter binding assay):



Assay mixture:

70 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: 1 µM
Substrate (ELK1): variable concentration
ERK2: 2 µg/ml
MSFC membrane (Millipore)

Field of application:

ELK1 has been validated for use in radiometric in-vitro kinase activity assays. It has not been successfully validated for use in ATP-consumption based kinase activity assays.

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ELK1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQ SMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RDSLEVL FQG	240
241	PLAMDPSVTL	WQFL LQLLRE	QGNHIIISWT	SRDGGEFKLV	DAEEVARLWG	LRKNKTNMNY	300
301	DKLSRALRY	YDKNIIRKVS	GQKFVYKFVS	YPEVAGCSTE	DCPPQPEVSV	TSTMPNVAPA	360
361	AIHAAPGDTV	SGKPGTPKGA	GMAGPGGLAR	SSRNEYMRSG	LYSTFTIQSL	QPQPPHPRP	420
421	AVVLP SAAPA	GAAAPPSGSR	STSPSPLEAC	LEAEEAGLPL	QVILTPEAP	NLKSEELNVE	480
481	PGLGRALPPE	VKVEGPKEEL	EVAGERGFVP	ETTKAEPEVP	PQEGV PARLP	AVVMDTAGQA	540
541	GGHAASSPEI	SQPQKGRKPR	DLELPLSPSL	LGGPGPERTP	GSGSGSGLQA	PGPALTPSLL	600
601	PTH TLTPVLL	TPSSLPPSIH	FWSTLSPIAP	RSPAKLSFQF	PSSGSAQVHI	PSISVDGLST	660
661	PVVLSPGPQK	P					720

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: ELK1

ELK1 wt ¹ amino acid sequence							
1	MDPSVTLWQF	LLQLLREQGN	GHIISWTSRD	GGEFKLVDAE	EVARLWGLRK	NKTNMNYDKL	60
61	SRALRYYYDK	NIIRKVS GQK	FVYKFVSYPE	VAGCSTEDCP	PQPEVSVTST	MPNVAPAAIH	120
121	AAPGDTVSGK	PGTPKGAGMA	GPGGLARSSR	NEYMRSGLYS	TFTIQSLQPQ	PPHPRPAVV	180
181	LPSAAPAGAA	APPSGSRSTS	PSPLEACLEA	EEAGLPLQVI	LTPPEAPNLK	SEELNVEPGL	240
241	GRALPPEVKV	EGPKEELEVA	GERGFVPETT	KAEPEVPPQE	GVPARLPAVV	MDTAGQAGGH	300
301	AASSPEISQP	QKGRKPRDLE	LPLSPSLLGG	PGPERTPGSG	SGSGLQAPGP	ALTPSLLPTH	360
361	TLTPVLLTPS	SLPPSIHFW	TLSP IAPRSP	AKLSFQFPSS	GSAQVHIPSI	SVDGLSTPVV	420
421	LSPGPQKP						480

blue: ELK1 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_005220.2