Certificate of Analysis

REACTION BIOLOGY

Recombinant Proteins

ProQinase™ ABL2

ABL proto-oncogene 2, non-receptor tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: ABL2

Synonyms: ABLL, ARG

Product No.: 1548-0000-2

Lot: 012

Description: Human ABL2, N-terminal fragment, amino acids M_1-P_{650} (as in NCBI/Protein entry NP_005149.4), N-terminal GST-HIS_6 fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: ABL2 Lot 012, was confirmed as ABL2 by mass spectroscopy LC-ESI-MS/MS

Theoretical $MW_{Fusion\ Protein}$: 100,398 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: in vitro auto activation

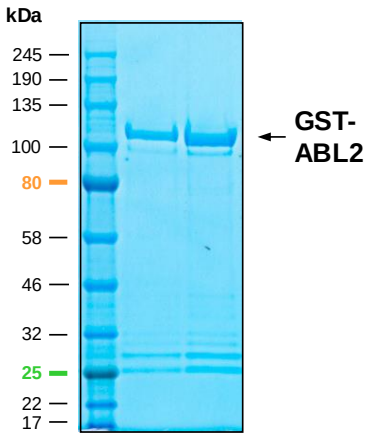
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20 % glycerol

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

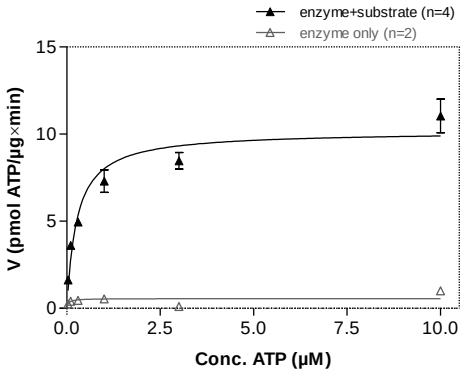
Biochemical Parameters:
Specific kinase activity (P_i transfer): 10 pmol/µg × min
ATP-K_M: 0.3 µM

ABL2 Lot 012:
Coomassie stain



2 µg GST-ABL2
4 µg GST-ABL2

ABL2 Lot 012:
Determination of V_{max} and K_M value for ATP



- Assay conditions:
  60 mM HEPES-NaOH, pH 7.5
  3 mM $MgCl_2$
  3 mM $MnCl_2$
  3 µM Na-orthovanadate
  1.2 mM DTT
  50 µg/ml $PEG_{20.000}$
  ATP (variable)
  Substrate: $Poly(Ala,Glu,Lys,Tyr)_{6:2:5:1}$ 2.5 µg/ml
  Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-ABL2 Recombinant Fusion Protein Amino Acid Sequence

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  1  MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID  60
 61  GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV 120
121  DFLSKLPEML KMFKDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK 180
181  KRIEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD PMGHHHHHHG RDSLEVLFQG 240
241  PMVLGTVLLP PNSYGRDQDT SLCCLCTEAS ESALPDLTDH FASCVEDGFE GDKTGGSSPE 300
301  ALHRPYGCDV EPQALNEAIR WSSKENLLGA TESDPNLFVA LYDFVASGDN TLSITKGEKL 360
361  RVLGYNQNGE WSEVRSKNGQ GWVPSNYITP VNSLEKHSWY HGPVSRSAAE YLLSSLINGS 420
421  FLVRESESSP GQLSISLRYE GRVYHYRINT TADGKVYVTA ESRFSTLAEL VHHHSTVADG 480
481  LVTTLHYPAP KCNKPTVYGV SPIHDKWEME RTDITMKHKL GGGQYGEVYV GVWKKYSLTV 540
541  AVKTLKEDTM EVEEFLKEAA VMKEIKHPNL VQLLGVCTLE PPFYIVTEYM PYGNLLDYLR 600
601  ECNREEVTAV VLLYMATQIS SAMEYLEKKN FIHRDLAARN CLVGENHVVK VADFGLSRLM 660
661  TGDTYTAHAG AKFPIKWTAP ESLAYNTFSI KSDVWAFGVL LWEIATYGMS PYPGIDLSQV 720
721  YDLLEKGYRM EQPEGCPPKV YELMRACWKW SPADRPSFAE THQAFETMFH DSSISEEVAE 780
781  ELGRAASSSS VVPYLPRLPI LPSKTRTLKK QVENKENIEG AQDATENSAS SLAPGFIRGA 840
841  QASSGSPALP RKQRDKSPSS LLEDAKETCF TRDRKGGFFS SFMKKRNAPT P          900
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1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: ABL2 fragment

ABL2 wt[1] Amino Acid Sequence

```
1     MVLGTVLLPP NSYGRDQDTS LCCLCTEASE SALPDLTDHF ASCVEDGFEG DKTGGSSPEA  60
61    LHRPYGCDVE PQALNEAIRW SSKENLLGAT ESDPNLFVAL YDFVASGDNT LSITKGEKLR 120
121   VLGYNQNGEW SEVRSKNGQG WVPSNYITPV NSLEKHSWYH GPVSRSAAEY LLSSLINGSF 180
181   LVRESESSPG QLSISLRYEG RVYHYRINTT ADGKVYVTAE SRFSTLAELV HHHSTVADGL 240
241   VTTLHYPAPK CNKPTVYGVS PIHDKWEMER TDITMKHKLG GGQYGEVYVG VWKKYSLTVA 300
301   VKTLKEDTME VEEFLKEAAV MKEIKHPNLV QLLGVCTLEP PFYIVTEYMP YGNLLDYLRE 360
361   CNREEVTAVV LLYMATQISS AMEYLEKKNF IHRDLAARNC LVGENHVVKV ADFGLSRLMT 420
421   GDTYTAHAGA KFPIKWTAPE SLAYNTFSIK SDVWAFGVLL WEIATYGMSP YPGIDLSQVY 480
481   DLLEKGYRME QPEGCPPKVY ELMRACWKWS PADRPSFAET HQAFETMFHD SSISEEVAEE 540
541   LGRAASSSSV VPYLPRLPIL PSKTRTLKKQ VENKENIEGA QDATENSASS LAPGFIRGAQ 600
601   ASSGSPALPR KQRDKSPSSL LEDAKETCFT RDRKGGFFSS FMKKRNAPTP PKRSSSFREM 660
661   ENQPHKKYEL TGNFSSVASL QHADGFSFTP AQQEANLVPP KCYGGSFAQR NLCNDDGGGG 720
721   GGSGTAGGGW SGITGFFTPR LIKKTLGLRA GKPTASDDTS KPFPRSNSTS SMSSGLPEQD 780
781   RMAMTLPRNC QRSKLQLERT VSTSSQPEEN VDRANDMLPK KSEESAAPSR ERPKAKLLPR 840
841   GATALPLRTP SGDLAITEKD PPGVGVAGVA AAPKGKEKNG GARLGMAGVP EDGEQPGWPS 900
901   PAKAAPVLPT THNHKVPVLI SPTLKHTPAD VQLIGTDSQG NKFKLLSEHQ VTSSGDKDRP 960
961   RRVKPKCAPP PPPVMRLLQH PSICSDPTEE PTALTAGQST SETQEGGKKA ALGAVPISGK 1020
1021  AGRPVMPPPQ VPLPTSSISP AKMANGTAGT KVALRKTKQA AEKISADKIS KEALLECADL 1080
1081  LSSALTEPVP NSQLVDTGHQ LLDYCSGYVD CIPQTRNKFA FREAVSKLEL SLQELQVSSA 1140
1141  AAGVPGTNPV LNNLLSCVQE ISDVVQR                                     1200
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blue: ABL2 sequence expressed in recombinant protein

[1]NCBI/Protein accession number NP_005149.4

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