

ABL1

Recombinant Human Abelson Tyrosine Kinase (aa 118-535) SH3 Domain Active GST-His

Catalog No.	CRA013A	Quantity:	10 µg
Alternate Names:	ABL, JTK7, bcr/abl, c-ABL, p150, v-abl, bcr/c-abl oncogene protein, proto-oncogene tyrosine-protein kinase ABL1, v-abl Abelson mouse leukemia viral oncogene homolog 1		
Description:	Human ABL1, internal fragment, amino acids P ₁₁₈ -S ₅₃₅ (as in GenBank entry NM_005157.3), N-terminal GST-HIS ₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells		

The ABL1 proto-oncogene encodes a cytoplasmic and nuclear protein tyrosine kinase that has been implicated in processes of cell differentiation, cell division, cell adhesion, and stress response. Activity of c-Abl protein is negatively regulated by its SH3 domain, and deletion of the SH3 domain turns ABL1 into an oncogene. The t(9;22) translocation results in the head-to-tail fusion of the BCR (MIM:151410) and ABL1 genes present in many cases of chronic myelogenous leukemia. The DNA-binding activity of the ubiquitously expressed ABL1 tyrosine kinase is regulated by CDC2-mediated phosphorylation, suggesting a cell cycle function for ABL1. The ABL1 gene is expressed as either a 6- or 7-kb mRNA transcript, with alternatively spliced first exons spliced to the common exons 2-11.

Concentration:	0.414 µg/µl
Gene ID:	25
Protein Accession No:	NM_005157.3
Source:	Baculovirus infected Sf9 cells
Molecular Weight:	Theoretical MW _{Fusion Protein} : 76,167 Da
Formulation:	50 mM HEPES pH 7.5 + 100 mM NaCl + 5 mM DTT +15 mM reduced glutathione, 20% glycerol
Purification:	GST-Affinity Chromatography
Product Identity:	ABL1 wt was confirmed by mass spectroscopy LC-ESI-MS/MS
Specific Activity:	75 pmol/µg×min

Determination of K_m value & Specific activity:

Assay conditions:
 60 mM HEPES-NaOH, pH 7.5
 3 mM MgCl₂
 3 mM MnCl₂
 3 µM Na-orthovanadate
 1.2 mM DTT

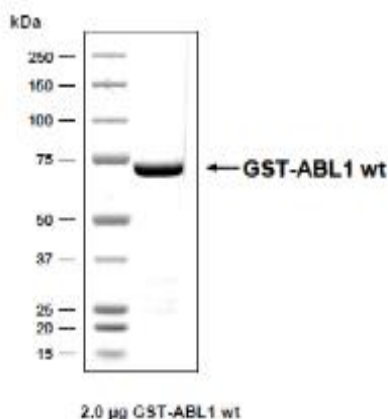


ATP (variable)
 Substrate: Poly (Ala,Glu,Lys,Tyr)_{6:2:5:1}
 (Sigma P-1152), 20 µg / ml
 ABL1 wt: 1.0 µg / ml
 • Filter binding assay
 MSFC membrane (Millipore)

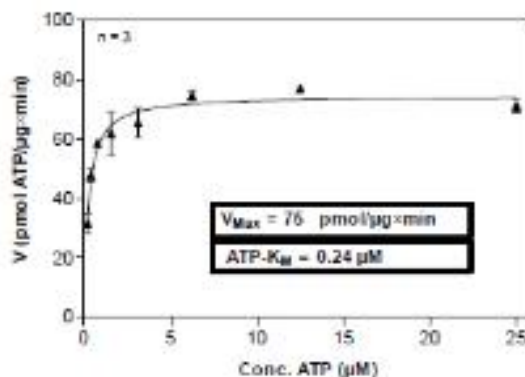
Amino Acid Sequence: MSPILGYWKI KGLVQPTRLLEYLEEKYEE HLYERDEGDK WRNKKFELGL
 EFPNLPYYID GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL
 DIRYGVSRIA YSKDFETLKV DFLSKLPEML KMFEDRLCHK TYLNGDHVTH
 PDFMLYDALD VVLYMDPMCL DAFPKLVCFK KRIEAIPQID KYLKSSKYIA
 WPLQGWWQATF GGDHPPKSD PMGHHHHHHHG RDSLEVLFGG PLAML**PVNSL**
EKHSWYHGPV SRNAAEYLLS SGINGSFLVR ESESSPGQRS ISLRYEGRVY
HYRINTASDG KLYVSSESRF NTLAELVHHH STVADGLITT LHYPAPKRNK
PTVYGVSPNY DKWEMERTDI TMKHKLGQQ YGEVYEGVWK KYSLTVAVKT
LKEDTMEVEE FLKEAAVMKE IKHPNLVQLL GVCTREPPFY IITEFMTYGN
LLDYLRECNR QEVNAVLLY MATQISSAME YLEKKNFIHR DLAARNCLVG
ENHLVKVADF GLSRLMTGDT YTAHAGAKFP IKWTAPESLA YNKFSIKSDV
WAFGVLLWEI ATYGMSPPYG IDLSQVYELL EKDYRMERPE GCPEKVYELM
RACWQWNPST RPSFAEIHQA FETMFQESSI SDEVEKELGK QGVRGAVSTL
LQAPELPTKT RTS

Storage & Stability: Store in working aliquots at -80°C. Avoid repeated freeze-thaw cycles.

ABL1 wt
Coomassie stain



ABL1 wt
Determination of V_{max} and K_m value for ATP



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

