Datasheet for ABIN5712349

ABL1 Protein (AA 4-194, partial) (GST tag)

1 Image

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Overview

Quantity:	100 µg
Target:	ABL1
Protein Characteristics:	AA 4-194, partial
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABL1 protein is labelled with GST tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	ICLKLVGCKS KKGLSSSSSC YLEEALQRPV ASDFEPQGLS EAARWNSKEN LLAGPSENDP NLFVALYDFV ASGDNTLSIT KGEKLRVLGY NHNGEWCEAQ TKNGQGWVPS NYITPVNSLE KHSWYHGPVS RNAAEYLLSS GINGSFLVRE SESSPGQRSI SLRYEGRVYH YRINTASDGK LYVSSESRFN T
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	ABL1
Alternative Name:	ABL1 (ABL1 Products)
Background:	Non-receptor tyrosine-protein kinase that plays a role in many key processes linked to cell

Target Details

	growth and survival such as cytoskeleton rodeling in response to extracellular stimuli, cell motility and adhesion, receptor endocytosis, autophagy, DNA damage response and apoptosis. Coordinates actin rodeling through tyrosine phosphorylation of proteins controlling cytoskeleton dynamics like WASF3 (involved in branch formation), ANXA1 (involved in mbrane anchoring), DBN1, DBNL, CTTN, RAPH1 and ENAH (involved in signaling), or MAPT and PXN (microtubule-binding proteins). Phosphorylation of WASF3 is critical for the stimulation of lamellipodia formation and cell migration. Involved in the regulation of cell adhesion and motility through phosphorylation of key regulators of these processes such as BCAR1, CRK, CRKL, DOK1, EFS or NEDD9. Phosphorylates multiple receptor tyrosine kinases and more particularly promotes endocytosis of EGFR, facilitates the formation of neuromuscular synapses through MUSK, inhibits PDGFRB-mediated chotaxis and modulates the endocytosis of activated B-cell receptor complexes. Other substrates which are involved in endocytosis regulation are the caveolin (CAV1) and RIN1. Moreover, ABL1 regulates the CBL family of ubiquitin ligases that drive receptor down-regulation and actin rodeling. Phosphorylation of CBL leads to increased EGFR stability. Involved in late-stage autophagy by regulating positively the trafficking and function of lysosomal components. ABL1 targets to mitochondria in response to oxidative stress and thereby mediates mitochondrial dysfunction and cell death. ABL1 is also translocated in the nucleus where it has DNA-binding activity and is involved in DNA-damage response and apoptosis. Many substrates are known mediators of DNA repair: DDB1, DDB2, ERCC3, ERCC6, RAD9A, RAD51, RAD52 or WRN. Activates the proapoptotic pathway when the DNA damage is too severe to be repaired. Phosphorylates TP73, a primary regulator for this type of damage-induced apoptosis. Phosphorylates the caspase CASP9 on 'Tyr-191' and regulates its processing in the apoptotic response to DNA damage. Phosphorylates PSMA7 that leads to an inhibition of proteasomal activity and cell cycle transition blocks
Molecular Weight:	48.5 kDa
UniProt:	P00520
Pathways:	Apoptosis, Regulation of Muscle Cell Differentiation, Platelet-derived growth Factor Receptor Signaling, Lipid Metabolism

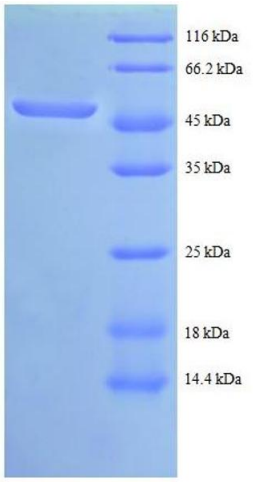
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.1-2 mg/mL
Buffer:	20 mM Tris-HCl based buffer, pH 8.0
Storage:	-80 °C,4 °C,-20 °C
Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



SDS-PAGE

Image 1.