## Recombinant Human ABL1/c-Abl protein (His Tag)

Catalog Number: PDEH100797



Description		
Species	Human	
Mol_Mass	16.3 kDa	
Accession	P00519	
Bio-activity	Not validated for activity	
Properties		
Purity	> 95% as determined by reducing SDS-PAGE.	
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method	
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80	
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of	
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with 5% Trehalose and 5%	
	Mannitol.	
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of	
	0.5 mg/mL. Concentration is measured by UV-Vis.	
Data		

Note: Centrifuge before opening to ensure complete recovery of vial contents.

KDa	М	R
80 60		
40	-	
30	-	22
20		Π
12	-	•

> 95 % as determined by reducing SDS-PAGE.

## Background

c-Abl belongs to the class of tyrosine kinases and is the prototype of a subfamily which includes two members, c-Abl and Arg (Abl-related gene). Both proteins are localized at the cell membrane, actin cytoskeleton and cytosol, and c-Abl is present in the nucleus as well. c-Abl is a non-receptor tyrosine kinase that participates in multiple signaling pathways linking the cell surface, cytoskeleton, and the nucleus. Recent in vitro studies have also linked c-Abl to amyloid-beta-induced toxicity and tau phosphorylation. c-Abl has been implicated in many cellular processes including differentiation, division, adhesion, death, and stress response. c-Abl is a latent tyrosine kinase that becomes activated in response to numerous extra-and intra-cellular stimuli. The c-Abl protein is a ubiquitously expressed nonreceptor tyrosine kinase involved in the development and function of many mammalian organ systems, including the immune system and bone. It regulates the cellular response to TAM through functional interaction with the estrogen receptor, which suggests c-Abl as a therapeutic target and a prognostic tumor marker for breast cancer. c-Abl also plays a key role in signaling chemokine-induced T-cell migration. In addition, c-Abl contains NLSs (nuclear localization signals) and DNA-binding sequences important for nuclear functions. c-Abl has become an important therapeutic target in human chronic myeloid leukaemia.

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