Human ABL1 / JTK7 / p150 Protein (GST Tag)

Catalog Number: **11199-H09B**

General Information

Gene Name Synonym:

ABL; bcr/abl; c-ABL; c-ABL1; JTK7; p150; v-abl

Protein Construction:

A DNA sequence encoding the amino acid sequence (Pro 137-Ser 554) of human ABL1 isoform B (NP_009297.2) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 75 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be 240 nmol/min/mg using synthetic Abl peptide (EAIYAAPFAKKK) as substrate.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human ABL1/GST chimera consists of 645 amino acids and predicts a molecular mass of 74 kDa. It migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, 0.5mM EDTA, 0.5mM Reduced Glutathione, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

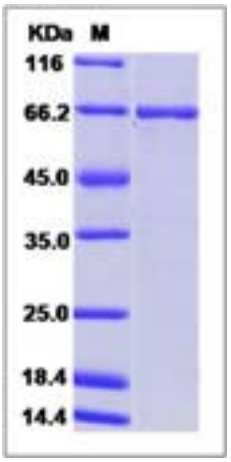
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Qiu Z, *et al.* (2010) c-Abl tyrosine kinase regulates cardiac growth and development. Proc Natl Acad Sci U S A. 107(3): 1136-41. 2.Huang Y, *et al.* (2008) The c-Abl tyrosine kinase regulates actin remodeling at the immune synapse. Blood. 112(1): 111-9. 3.Sirvent A, *et al.* (2008) Cytoplasmic signalling by the c-Abl tyrosine kinase in normal and cancer cells. Biol Cell. 100(11): 617-31.