Human 14-3-3 beta / YWHAB Protein (GST Tag)

Catalog Number: 10843-H09E

General Information

Gene Name Synonym:
GW128; HEL-S-1; HS1; KCIP-1; YWHAA

Protein Construction:
A DNA sequence encoding the human YWHAB (NP_003395.1) (Met 1-
Asn 246) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Endotoxin:
Please contact us for more information.

Stability:
Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:
The recombinant human YWHAB/GST chimera consists of 478 amino
acids and has a predicted molecular mass of 54.9 kDa. It migrates as an
approximately 92 kDa band in SDS-PAGE under reducing conditions.

Formulation:
Lyophilized from sterile 20mM Tris, 150mM NaCl, 0.1mM DTT, 10%
glycerol, pH 7.5

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°C to -80°C 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

14-3-3 beta / YWHAB is a member of the 14-3-3 proteins family. 14-3-3 proteins are a group of highly conserved proteins that are involved in many vital cellular processes such as metabolism, protein trafficking, signal transduction, apoptosis and cell cycle regulation. 14-3-3 proteins are mainly localized in the synapases and neuronal cytoplasm, and seven isoforms have been identified in mammals. This family of proteins was initially identified as adaptor proteins which bind to phosphorylating-containing motifs. Binding motifs and potential functions of 14-3-3 proteins are now recognized to have a wide range of functional relevance. 14-3-3 beta / YWHAB is found in both plants and mammals, and this protein is 100% identical to the mouse ortholog. 14-3-3 beta / YWHAB interacts with CDC25 phosphatases, RAF1 and IRS1 proteins, suggesting its role in diverse biochemical activities related to signal transduction, such as cell division and regulation of insulin sensitivity. 14-3-3 beta / YWHAB has also been implicated in the pathogenesis of small cell lung cancer. 14-3-3 beta / YWHAB binding negatively regulates RSK1 activity to maintain signal specificity and that association/dissociation of the 14-3-3 beta-RSK1 complex is likely to be important for mitogen-mediated RSK1 activation.

References

1. Tommerup N. et al. (1996) Assignment of the human genes encoding
14-3-3 Eta (YWHAH) to 22q12, 14-3-3 zeta (YWHAZ) to 2p25.1-p25.2, and