



Recombinant Protein Technical Manual  
Recombinant Human 14-3-3 beta/YWHAB Protein  
RPES0464

### Product Data:

**Product SKU:** RPES0464

**Size:** 50µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** NP\_003395.1

### Protein Information:

**Molecular Mass:** 28 kDa

**AP Molecular Mass:** 28 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 93 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** 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°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

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

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** GW128;HEL-S;HS1;KCIP;YWHAA

## Immunogen Information:

**Sequence:** Met 1-Asn 246

## Background:

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 synapses and neuronal cytoplasm, and seven isoforms have been identified in mammals. This family of proteins was initially identified as adaptor proteins which bind to phosphoserine-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 14-3-3beta-RSK1 complex is likely to be important for mitogen-mediated RSK1 activation.