



Recombinant Protein Technical Manual  
Recombinant Human 14-3-3 sigma/YWHAS Protein  
(GST Tag)  
RPES2804

### Product Data:

**Product SKU:** RPES2804

**Size:** 20µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** NP\_006133.1

### Protein Information:

**Molecular Mass:** 50.1 kDa

**AP Molecular Mass:** 48 kDa

**Tag:** N-GST

**Bio-activity:**

**Purity:** > 94 % 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, 10mM GSH, 25% glycerol, pH 8.0

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

**Application:**

**Synonyms:** 14-3-3 Protein Sigma; Epithelial Cell Marker Protein 1; Stratifin; SFN; HME1

## Immunogen Information:

**Sequence:** Met 1-Ser 248

## Background:

14-3-3 protein sigma (YWHAS), also known as stratifin (SFN) and epithelial cell marker protein 1, is a member of the 14-3-3 proteins which are a family of conserved regulatory molecules expressed in all eukaryotic cells. The name 14-3-3 refers to the particular elution and migration pattern of these proteins on DEAE-cellulose chromatography and starch-gel electrophoresis. The 14-3-3 proteins eluted in the 14th fraction of bovine brain homogenate and were found on positions 3.3 of subsequent electrophoresis. There are seven genes that encode 14-3-3s in most mammals. 14-3-3 proteins have been identified as adapter proteins implicated in the regulation of a large spectrum of both general and specialized signaling pathways. More than 100 signaling proteins have been reported as 14-3-3 ligands including kinases, phosphatases, and transmembrane receptors, and the binding generally results in the modulation of the activity of the binding partner. YWHAE exists as a homodimer and is present mainly in tissues enriched in stratified squamous keratinising epithelium. YWHAS has been reported to interact with KRT17 and GAB2, and may regulate protein synthesis and epithelial cell growth by stimulating Akt/mTOR pathway upon binding to KRT17. Additionally, YWHAS (SFN) may also act as a p53-regulated inhibitor of G2/M progression.