



Recombinant Protein Technical Manual  
Recombinant Human RACK1/GNB2L1 Protein (His & MBP Tag)  
RPES4942

### Product Data:

**Product SKU:** RPES4942

**Size:** 20µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P63244

### Protein Information:

**Molecular Mass:** 78.7 kDa

**AP Molecular Mass:** 70 kDa

**Tag:** N-His & MBP

**Bio-activity:**

**Purity:** > 83 % 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 PBS, pH 7.5

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

**Application:**

**Synonyms:** Gnb2-rs1;H12.3;HLC-7;PIG21;RACK1

## Immunogen Information:

**Sequence:** Met 1-Arg 317

## Background:

Calmodulin-like protein 3 (CALML3) is similar to that of authentic calmodulin and may actually compete with calmodulin by binding, with different affinity, to cellular substrates. Calmodulin-like protein 3 (CALML3) is a tumor-sensitive protein specifically expressed in normal epithelial cells but downregulated in tumorigenesis. Downregulation of the protein is an early event in breast cancer development. One of the most pressing questions raised by the discovery of CLP/CALML3 is that of its potential targets. Although it is 85% identical to human calmodulin, the distinct properties of CLP suggest that it has specific targets or targets that only partially overlap with those of calmodulin. Research has identified the unconventional myosin0 (Myo10) as a specific target of CALML3. The discovery of Myo10 as a specific target of CALML3 is highly significant and suggests multiple lines of further research such as investigations of the Ca<sup>2+</sup> regulation of Myo10 and the role of the loss of CLP in epithelial differentiation, adhesion, and cancer. Cells expressing CALML3 displayed a striking increase in the number and length of myosin0-positive filopodia and showed increased mobility in a wound healing assay.