

**RPB854Hu01 100µg**  
**Recombinant Calumenin (CALU)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

10th Edition (Revised in Jan, 2014)

## [ **PROPERTIES** ]

**Residues:** Lys20~Phe315

**Tags:** Two N-terminal Tags, His-tag and T7-tag

**Accession:** O43852

**Host:** *E. coli*

**Subcellular Location:** Endoplasmic reticulum lumen. Secreted. Melanosome. Sarcoplasmic reticulum lumen.

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg  
(determined by the LAL method).

**Formulation:** Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.

**Predicted isoelectric point:** 4.7

**Predicted Molecular Mass:** 38.8kDa

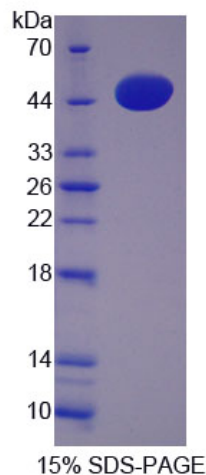
**Accurate Molecular Mass:** 49kDa as determined by SDS-PAGE reducing conditions.

**Applications:** SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

**Note:** The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.



## **[ USAGE ]**

Reconstitute in sterile ddH<sub>2</sub>O.

## **[ STORAGE AND STABILITY ]**

**Storage: Avoid repeated freeze/thaw cycles.**

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCES ]**

The sequence of the target protein is listed below.

K PTEKKDRVHH EPQLSDKVHN DAQSFYDHD AFLGAEAAKT FDQLTPEESK ERLGKIVSKI  
DGDKDG FVTV DELKDWIKFA QKRWIYEDVE RQWKGHDLINE DGLVSWEEYK  
NATYGYLDD PDPDDGFNYK QMMVRDERRF KMADKDGDLI ATKEEFTAFI HPPEYDYMKD  
IVVQETMEDI DKNADGFIDL EEYIGDMYSH DGNTDEPEWV KTEREQFVEF RDKNRDGKMD  
KEETKDWILP SDYDHAEAEA RHLVYESDQN KDGKLTKEEI VDKYDLFVGS QATDFGEALV  
RHDEF

## **[ REFERENCES ]**

1. Vorum H., *et al.* (1998) *Biochim. Biophys. Acta* 1386:121-131.
2. Yabe D., *et al.* (1998) *Genomics* 49:331-333.
3. Vorum H., *et al.* (1999) *Exp. Cell Res.* 248:473-481.
4. Tagliabracci V.S., *et al.* (2015) *Cell* 161:1619-1632.