

**RPB830Hu01 10 $\mu$ g**  
**Recombinant Transglutaminase 2, Tissue (TGM2)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

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

9th Edition (Revised in Jul, 2013)

**[ PROPERTIES ]**

**Residues:** Met1~Ala687 (Accession # P21980),  
with N-terminal His-Tag.

**Host:** *E. coli*

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1 $\mu$ g  
(determined by the LAL method).

**Formulation:** Supplied as lyophilized form in PBS,  
pH7.4, containing 1mM DTT, 5% trehalose, 0.1%  
sarcosyl and preservative.

**Predicted isoelectric point:** 5.3

**Predicted Molecular Mass:** 78.8kDa

**Accurate Molecular Mass:** 100kDa as determined by SDS-PAGE reducing conditions.

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

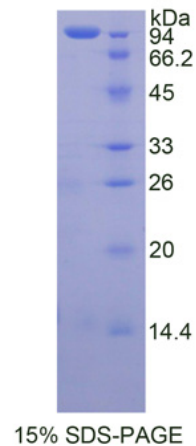
(May be suitable for use in other assays to be determined by the end user.)

**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 PBS, pH7.2-pH7.4.



## [ **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 target protein is fused with N-terminal His-Tag, its sequence is listed below.

MGHHHHHSGSEF-MAEELVLERC DLELETNGRD HHTADLCREK LVVRRGQPFW  
LTLHFEGRNY EASVDSLTFV VVTGPAPSQE AGTKARFPLR DAVEEGDWTA TVVDQQDCTL  
SLQLTTPANA PIGLYRLSLE ASTGYQGSSF VLGHFILLFN AWCPADAVYL DSEEERQEYV  
LTQQGFIYQG SAKFIKNIPWNFGQFEDGIL DICLILLDVN PKFLKNAGR D CSRRSSPVYV  
GRVVS GMVNC NDDQGVLLGR WDNNGDGV S PMSWIGSVDI LRRWKNHGCQ  
RVKYQCWVF AAVACTVLR C LGIPTRVVTN YNSAHDQNSN LLIEYFRNEF GEIQGDKSEM  
IWNFHCWVES WMTRPDLQPG YEGWQALDPT PQEKSEGTYC CGPVPVRAIK  
EGDLSTKYDA PFVFAEVNAD VVDWIQQDDG SVHKSINRSL IVGLKISTKS VGRDEREDIT  
HTYKYPEGSS EEREAFTRAN HLNKLAKEKEE TGMAMRIRVG QSMNMGSDFD VFAHITNNTA  
EEYVCRLLLC ARTVSYNGIL GPECGTYKLL NLNLEPFSEK SVPLCILYEK YRDCLTESNL  
IKVRALLVEP VINSYLLAER DLYLENPEIK IRILGEPKQK RKLVAEVS LQ NPLPVALEGC  
TFTVEGAGLT EEQKTVEIPD PVEAGEEVKV RMDLLPLHMG LHKLVNFES DKLKAVKGFR  
NVIIGPA

## [ **REFERENCES** ]

1. Gentile V., *et al.* (1991) J. Biol. Chem. 266:478-483.
2. Fraij B.M., *et al.* (1992) J. Biol. Chem. 267:22616-22623.
3. Van Damme P., *et al.* (2012) Proc. Natl. Acad. Sci. U.S.A. 109:12449-12454.
4. Pinkas D.M., *et al.* (2007) PLoS Biol. 5:E327-E327.