

## TGM5 Antibody

*TGM5: Transglutaminase 5, protein-glutamine gamma-glutamyltransferase 5, TGase-5, TGase X, TGMX, TGX*

**CATALOG No.: 6537**

### Background:

Transglutaminases (TGM) are a family of structurally and functionally related  $\text{Ca}^{2+}$ -dependent enzymes (TGases) that stabilize protein assemblies through the formation of gamma-glutamyl-epsilon lysine crosslinks (1). TGases influence numerous biological processes, including blood coagulation, cell differentiation, fertilization and apoptosis (1). TGM5 belongs to the transglutaminase superfamily and catalyzes the cross-linking of proteins between glutamine and lysine residues, often resulting in stabilization of protein assemblies (2). TGM5 is also expressed in the human hair follicle (3). Defects in TGM5 are associated with acral peeling skin syndrome (4).

### SOURCE:

Rabbit polyclonal TGM5 antibody was raised against a 19 amino acid peptide near the carboxy terminus of human TGM5 (GenBank accession No. NP\_963925).

### STORAGE:

TGM5 antibody is supplied as immunoaffinity chromatography purified IgG in PBS containing 0.02% sodium azide. Stable at 4°C for three months, store at -20°C for up to one year.

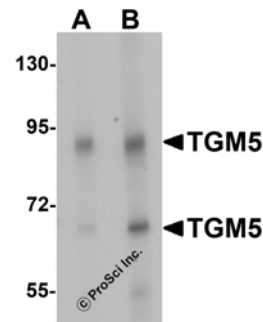
### APPLICATION:

TGM5 antibody can be used for detection of TGM5 by Western blot at 1 - 2 µg/ml. (Optimal dilution should be determined by user.) Rat heart tissue lysate can be used as positive control.

### SPECIFICITY:

TGM5 antibody is human, mouse and rat reactive. TGM5 antibody is predicted to not cross-react with other TGase protein family members. Multiple isoforms of TGM5 are known to exist.

**For research use only.**



Western blot analysis of TGM5 in rat heart tissue lysate with TGM5 antibody at (A) 1 and (B) 2 µg/ml.

### RELATED PRODUCTS:

Blocking Peptide, Catalog No. **6537P**  
 Rat Heart Tissue Lysate, Catalog No. **1461**  
 TGM6 (IN) Antibody, Catalog No. **6473**  
 TGM6 (CT) Antibody, Catalog No. **6539**  
 TGM7 Antibody, Catalog No. **6541**

### REFERENCES:

1. Ueki S, et al. Dual functions of transglutaminase in novel cell adhesion. *J. Cell Sci.* 1996; 109:2727-35.
2. Candi E, Oddi S, Terrinoni A, et al. Transglutaminase 5 cross-links loricrin, involucrin, and small proline-rich proteins in vitro. *J. Biol. Chem.* 2001; 276:35014-23.
3. Thibaut S, Candi E, Pietroni V, et al. Transglutaminase 5 expression in human hair follicle. *J. Invest. Dermatol.* 2005; 125:581-5.
4. Cassidy AJ, van Steensel MA, Steijlen PM, et al. A homozygous missense mutation in TGM5 abolishes epidermal transglutaminase 5 activity and causes acral peeling skin syndrome. *Am. J. Hum. Genet.* 2005; 77:909-17.

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