



# *Biotinylated* **Anti-human Transglutaminase 4/TGM4 Antibody**

## ORDERING INFORMATION

**Catalog Number:** BAF5760

**Lot Number:** CDEH01

**Size:** 50 µg

**Formulation:** 0.2 µm filtered solution in PBS with BSA

**Storage:** -20° C

**Reconstitution:** sterile 0.1% BSA in TBS

**Specificity:** human Transglutaminase 4

**Immunogen:** Sf21-derived  
rhTransglutaminase 4

**Ig Type:** sheep IgG

**Application:** Western blot

## **Background**

TGM4 (Transglutaminase 4; also TGP and Prostate-specific transglutaminase) is a 77 kDa member of the papain-like family of transglutaminases. It is expressed by various tumor cell lines plus prostatic epithelium, and may participate in semen protein modification. TGM4, like other TGMs, can apparently mediate transamidation, plus esterification reactions. Human TGM4 is 684 amino acids (aa) in length. Although it does not contain a signal sequence, based on rodent, it is likely secreted as a homodimer. TGM4 contains an active enzyme site between aa 263 - 353, and shows a C-terminal Ig-like domain (aa 587 - 684). The molecule has a requirement for divalent calcium. There are two potential splice variants. One shows a 45 aa insertion after Leu8, while another shows a 12 aa substitution for aa 1 - 80. Human full-length TGM4 shares only 54% aa identity with mouse TGM4.

## **Preparation**

Produced in sheep immunized with purified, Sf21-derived, recombinant human Transglutaminase 4 (rhTransglutaminase 4; aa 2 - 684; Accession # AAC50516). Human Transglutaminase 4 specific IgG was purified by human Transglutaminase 4 affinity chromatography and then biotinylated.

## **Formulation**

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) containing 50 µg of bovine serum albumin (BSA) per 1 µg of antibody.

## **Reconstitution**

Reconstitute with sterile Tris-buffered saline pH 7.3 (20 mM Trizma base, 150 mM NaCl) containing 0.1% BSA. If 1 mL of buffer is used, the antibody concentration will be 50 µg/mL.

## **Storage**

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a **manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

## **Specificity**

This antibody has been selected for use as a detection antibody in human Transglutaminase 4 Western blots.

## **Application**

**Western blot** - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human Transglutaminase 4. The detection limit for rhTransglutaminase 4 is approximately 5 ng/lane under non-reducing and reducing conditions. In this format, this antibody shows approximately 5% cross-reactivity with rhTransglutaminase 2, rhTransglutaminase 3, rhTransglutaminase 7 and rmTransglutaminase 2.

**Optimal dilutions should be determined by each laboratory for each application.**