

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Transglutaminase 4 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) Transglutaminase 2, rhTransglutaminase 3, rhTransglutaminase 7, and recombinant m                                      |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Transglutaminase 4 Met2-Lys684<br>Accession # AAC50516                                                                                                                                        |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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.

#### PRODUCT SPECIFIC NOTICES

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