Mouse/Rat Transglutaminase 2/TGM2 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

Catalog Number: AF5418

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat Transglutaminase 2/TGM2 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) TGM2 and rhTGM7 is observed, and less than 1% cross-reactivity with rhTGM3 and rhTGM4 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse Transglutaminase 2/TGM2 Ala2-Ala686 Accession # P21981
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

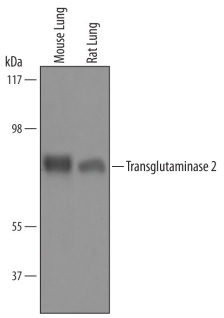
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Mouse and Rat Transglutaminase 2/TGM2 by Western Blot.
Western blot shows lysates of mouse lung tissue and rat lung tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Mouse/Rat Transglutaminase 2/TGM2 Polyclonal Antibody (Catalog # AF5418) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Transglutaminase 2/TGM2 at approximately 80-85 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Transglutaminase 2 (TG2), encoded by the Tgm2 gene, is also known as tissue Transglutaminase (tTG), Transglutaminase C (TGC), and protein-glutamine-γ-glutamyltransferase. It belongs to the family of transglutaminases that catalyze the posttranslational modification of proteins via calcium dependent cross-linking reactions (1-3). In addition to its function in protein cross-linking, TGM2 is also capable of hydrolyzing both GTP and ATP (4) and has intrinsic kinase activity (5). TGM2 has been implicated in a variety of human diseases including celiac disease, inclusion body myositis, atherosclerosis, and neurodegenerative diseases (6, 7).

References:

1. Gentile, V. *et al.* (1991) J. Biol. Chem. **266**:478.
2. Chen, J.S.K. and Mehta K. (1999) Internat. J. Biochem. Cell Biol. **31**:817.
3. Griffin, M. *et al.* (2002) Biochem. J. **368**:377.
4. Lai, T.S. *et al.* (1998) J. Biol. Chem. **273**:1776.
5. Mishra, S. *et al.* (2007) J. Biol. Chem. **282**:18108.
6. Kim, S-Y. *et al.* (2002) Neurochem. Int. **40**:85.
7. Lesort, M. *et al.* (2000) Prog. Neurobiol. **61**:439.

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