Human Transglutaminase 2/TGM2 Antibody

Monoclonal Mouse IgG_{2B} Clone # 716620

Catalog Number: MAB4376

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Transglutaminase 2/TGM2 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Transglutaminase 3, 4, 7, or recombinant mouse Transglutaminase 2 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 716620
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human Transglutaminase 2/TGM2 Ala2-Ala687 Accession # P21980
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 as a 0.2 μm filtered solution in PBS.

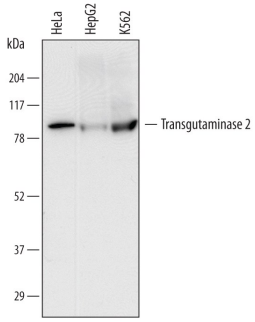
APPLICATIONS

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 Human Transglutaminase 2/TGM2 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, HepG2 human hepatocellular carcinoma cell line, and K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Transglutaminase 2/TGM2 Monoclonal Antibody (Catalog # MAB4376) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Transglutaminase 2/TGM2 at approximately 85 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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), transgluytaminase 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 K. Mehta (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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