TGM2 Monoclonal Antibody (CUB 7402), Biotin

Product Details	
Size	500 µL
Species Reactivity	Dog, Guinea pig, Human, Rabbit
Published Species	Dog, Rat, Pig, Non-human primate, Hamster, Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	CUB 7402
Conjugate	Biotin
Immunogen	Purified guinea pig liver TGase II
Form	Liquid
Concentration	0.2 mg/mL
Purification	Protein G
Storage buffer	PBS, pH 7.4, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_10985720

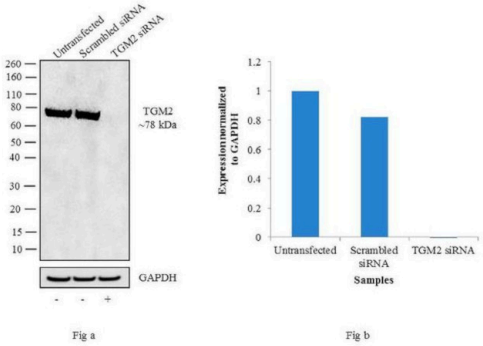
Applications	Tested Dilution	Publications
Western Blot (WB)	2 µg/mL	34 Publications
Immunohistochemistry (IHC)	-	20 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1-2 µg/mL	-
Immunocytochemistry (ICC/IF)	-	9 Publications
ELISA (ELISA)	-	4 Publications
Immunoprecipitation (IP)	2 µg/mL	4 Publications
Neutralization (Neu)	-	1 Publication

Product Specific Information

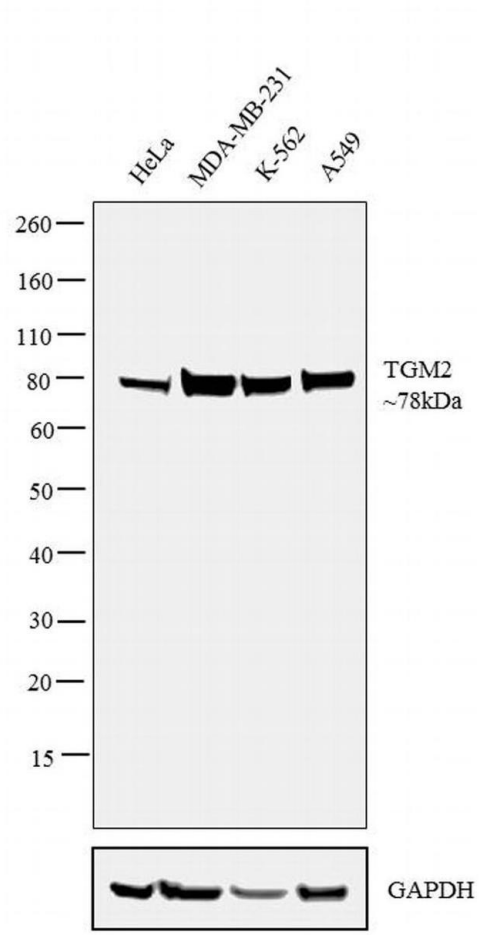
MA5-12736 targets Transglutaminase II in IF, IHC (P), IP, and WB applications and shows reactivity with Canine, Guinea Pig, Human, and Rabbit samples.

The MA5-12736 immunogen is purified guinea pig liver TGase II.

Product Images For TGM2 Monoclonal Antibody (CUB 7402), Biotin



TGM2 Antibody (MA5-12736)
Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with TGM2 siRNA and decrease in signal intensity was observed in western blot application using anti-TGM2 siRNA (Product # MA5-12736). {KD}



TGM2 Antibody (MA5-12736) in WB
Western blot analysis was performed on whole cell extracts (30 µg lysate) of HeLa (Lane 1), MDA-MB-231 (Lane 2), K-562 (Lane 3) and A549 (Lane 4). The blots were probed with Mouse anti-TGM2 Monoclonal Antibody (Product # MA5-12736, 2 µg/mL) and detected by chemiluminescence using Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate (Product # A28177, 0.25 µg/mL, 1:4000 dilution). A 78 kDa band corresponding to TGM2 was observed across the cell lines tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary antibody following blocking with 5 % skimmed milk. This is followed by incubating the membrane with Poly-HRP Streptavidin (Product # N200, 1:10,000). Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).

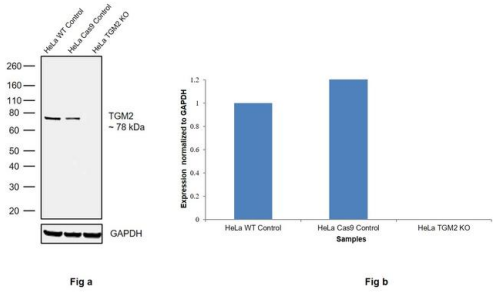


Fig a Fig b

TGM2 Antibody (MA5-12736) in WB
Knockout of TGM2 was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID CRISPR979226_LV) and LentiArray Cas9 Lentivirus (Product # A32064). Western blot analysis of TGM2 was performed by loading 30 µg of HeLa Wild type (Lane 1), HeLa Cas9 (Lane 2) and HeLa TGM2 KO (Lane 3) whole cell extracts. The samples were electrophoresed using NuPAGE™ Novex™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with Anti-TGM2 Monoclonal Antibody (CUB 7402), Biotin (Product # MA5-12736, 0.2 µg dilution) and Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:5,000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). Loss of signal upon CRISPR mediated knockout (KO) using the LentiArray™ CRISPR product line confirms that antibody is specific to TGM2.

View more figures on thermofisher.com

72 References

Western Blot (34)

Journal of thoracic oncology : official publication of the International Association for the Study of Lung Cancer

TGM2: a cell surface marker in esophageal adenocarcinomas.

"MA5-12736 was used in immunohistochemistry and western blot to study the value of cell surface transglutaminase-2 as a biomarker for the early detection of esophageal adenocarcinomas"

Authors: Leicht DT,Kausar T,Wang Z,Ferrer-Torres D,Wang TD,Thomas DG,Lin J,Chang AC,Lin L,Beer DG

Year
2014

Species
Human

Dilution
1:5000

Cellular and molecular life sciences : CMLS

Celiac disease patient IgA antibodies induce endothelial adhesion and cell polarization defects via extracellular transglutaminase 2.

"MA5-12736 was used in ELISA and western blot to study the role of endothelial cell transglutaminase-2 secretion in the mechanism by which IgA antibodies from patients with celiac disease disrupt endothelial cell ahesion and polarization"

Authors: Nadalutti CA,Korponay-Szabo IR,Kaukinen K,Griffin M,Mäki M,Lindfors K

Year
2014

Species
Human

View more WB references on thermofisher.com

Immunohistochemistry (20)

Cellular & molecular immunology

Intestinal-mucosa anti-transglutaminase antibody assays to test for genetic gluten intolerance.

"MA5-12736 was used in immunohistochemistry to develop assays for the detection of genetic gluten intolerence based on the measurement of intestinal epithelial transglutaminase"

Authors: Quaglia S,De Leo L,Ziberna F,Vatta S,Villanacci V,Granzotto M,Petix V,Martelossi S,Di Leo G,Torelli L,Not T

Year
2014

Species
Human

Journal of the American Heart Association

Exercise, vascular stiffness, and tissue transglutaminase.

"MA5-12736 was used in immunohistochemistry to study the effects of aerobic exercise on NO signaling, transglutaminase-2 activity and vascular stiffness in a rat model"

Authors: Steppan J,Sikka G,Jandu S,Barodka V,Halushka MK,Flavahan NA,Belkin AM,Nyhan D,Butlin M,Avolio A, Berkowitz DE,Santhanam L

Year
2014

Species
Rat

Dilution
5 µg/mL

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More applications with references on thermofisher.com

ICC/IF (9) **ELISA (4)** **IP (4)** **Neu (1)**