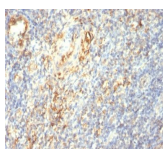


# Transglutaminase-II Monoclonal Mouse Antibody (TGM2/419)



## Product Description

Recognizes a 77-85 kDa protein, identified as cellular or tissue transglutaminase II (TGase II). Transglutaminases are enzymes that catalyze the crosslinking of proteins by epsilon gamma glutamyl lysine isopeptide bonds. While the primary structure of transglutaminases is not conserved, they all have the same amino acid sequence at their active sites and their activity is calcium-dependent. The protein encoded by this gene acts as a monomer, is induced by retinoic acid, and appears to be involved in apoptosis. Finally, the encoded protein is the autoantigen implicated in celiac disease. The identification of transglutaminase as the main antigen of endomysium antibodies allows a new diagnostic approach to celiac disease (CD), a genetic, immunologically mediated small bowel enteropathy that causes malabsorption. TGase II is implicated in programmed cell death, signal transduction, drug-resistance, cell growth, endocytosis, insulin secretion, cell adhesion, cataract formation, and wound healing.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 0419, Anti-Transglutaminase-II (TGM2/419)**

## Product attributes

<b>Antibody number</b>	#0419
<b>Antibody reactivity (target)</b>	Transglutaminase-II
<b>Antibody type</b>	Primary
<b>Host species</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone</b>	TGM2/419
<b>Isotype</b>	IgG1, kappa
<b>Molecular weight of antigen</b>	77-85 kDa
<b>Synonyms</b>	Protein-glutamine gamma-glutamyltransferase 2; TG(C); TG2; TGase C; TGase H; TGase-2; TGaseII; TGC; TGM2; Tissue type transglutaminase; Transglutaminase 2 C polypeptide; Transglutaminase H; iTG; iTGas
<b>Human gene symbol</b>	TGM2
<b>Entrez gene ID</b>	7052
<b>SwissProt</b>	P21980
<b>Unigene</b>	517033
<b>Immunogen</b>	Recombinant full-length human TGM2 protein
<b>Antibody target cellular localization</b>	Cytoplasmic, Secreted (extracellular)
<b>Species reactivity</b>	Human, Monkey, Mouse, Rabbit, Rat
<b>Antibody application notes</b>	For coating for ELISA, order Ab without BSA. Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Optimal dilution and staining procedure for a specific application should be determined by user. Recommended starting concentrations for titration are 1-2 ug/mL for most applications, or 1 ug/million cells/100 uL for flow cytometry
<b>Positive control</b>	HUVEC Cells. Endothelial cells in placenta, liver, brain, or breast carcinoma. Smooth muscle cells of any origin (e.g. intestine)
<b>Shipping condition</b>	Room temperature
<b>Storage Conditions</b>	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
<b>Shelf life</b>	Guaranteed for at least 24 months from date of receipt when stored as recommended
<b>Regulatory status</b>	For research use only (RUO)
<b>Antibody/conjugate formulation</b>	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
<b>Antibody research areas</b>	Cytoskeleton
<b>Product origin</b>	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

## References

Yamanishi, K., et al. 1991. Molecular cloning of human epidermal transglutaminase cDNA from keratinocytes in culture. *Biochem. Biophys. Res. Commun.* 175: 906-913. |

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