For Research Use Only

TGM2 Monoclonal antibody

Catalog Number:68006-1-Ig 5 Publications

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Basic Information

Catalog Number:
68006-1-Ig

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG7462

GenBank Accession Number:
BC003551

GeneID (NCBI):
7052

ENSEMBL Gene ID:
ENSG00000198959

UNIPROT ID:
P21980

Full Name:
transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)

Calculated MW:
77 kDa

Observed MW:
80 kDa

Purification Method:
Protein A purification

CloneNo.:
2D4C11

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:2000-1:8000
IF/ICC: 1:400-1:1600
FC (Intra): 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF, CoIP

Species Specificity:
human

Cited Species:
human, mouse, hamster

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, human placenta tissue, HUVEC cells, HepG2 cells, K-562 cells

IHC : human liver cancer tissue,

IF/ICC : A549 cells,

FC (Intra) : HeLa cells,

Background Information

Transglutaminase 2 (TGM2) is a ubiquitous and multifunctional calcium-dependent enzyme belonging to the transglutaminase family. It is best known for its canonical activity of catalyzing the cross-linking of proteins by forming stable ε-(γ-glutamyl)lysine isopeptide bonds, which contributes to extracellular matrix stabilization and wound healing. Beyond this, TGM2 exhibits GTPase activity, allowing it to function as a signaling G-protein in intracellular processes. It is implicated in a wide range of physiological functions, including cell adhesion, proliferation, and apoptosis, as well as pathological conditions such as celiac disease, fibrosis, neurodegenerative disorders, and cancer metastasis, where its dysregulated expression often contributes to disease progression.

Notable Publications

Author	Pubmed ID	Journal	Application
Menghao Shi	35245730	Biomaterials	IF
Cuiping Sun	40445445	Discov Oncol	WB,IHC,IF,CoIP
Hui-Jie Zhang	40327404	ACS Synth Biol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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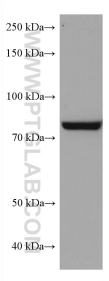
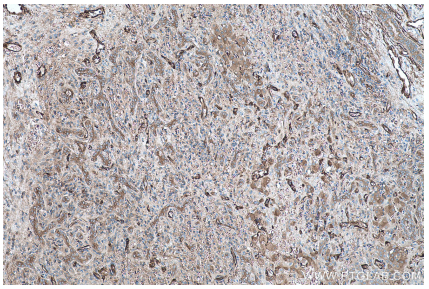
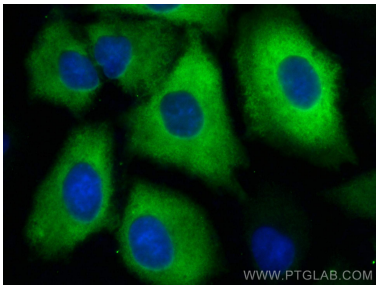
Selected Validation Data



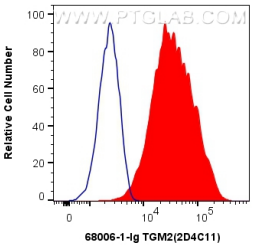
HeLa cells were subjected to SDS PAGE followed by western blot with 68006-1-Ig (TGM2 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 68006-1-Ig (TGM2 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed A549 cells using TGM2 antibody (68006-1-Ig, Clone: 2D4C11) at dilution of 1:800 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002).



1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human TGM2 (68006-1-Ig, Clone:2D4C11) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2a Isotype Control (C1.18.4) (65208-1-Ig, Clone: C1.18.4) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.