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TGM5 Antibody

Catalog # ASC11388

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O43548
Other Accession	NP_963925, 94981556
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	80778
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TGM5 antibody can be used for detection of TGM5 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	9333
Other Names	Protein-glutamine gamma-glutamyltransferase 5, 2.3.2.13, Transglutaminase X, TG(X), TGX, TGase X, Transglutaminase-5, TGase-5, TGM5, TGMX
Target/Specificity	TGM5; TGM5 antibody is predicted to not cross-react with other TGase protein family members. Multiple isoforms of TGM5 are known to exist.
Reconstitution & Storage	TGM5 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TGM5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TGM5
Synonyms	TGMX
Function	Catalyzes the cross-linking of proteins and the conjugation of polyamines to proteins. Contributes to the formation of the cornified cell envelope of keratinocytes.
Cellular Location	Cytoplasm. Note=Associated with intermediate filaments

Tissue Location	Expressed in foreskin keratinocytes.

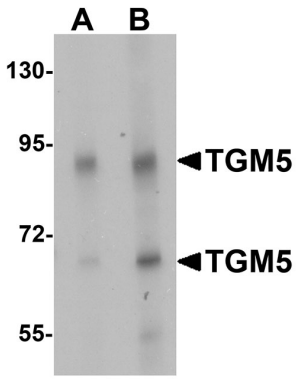
Background

TGM5 Antibody: Transglutaminases (TGM) are a family of structurally and functionally related Ca2+-dependent enzymes (TGases) that stabilize protein assemblies through the formation of gamma-glutamyl-epsilon lysine crosslinks. TGases influence numerous biological processes, including blood coagulation, cell differentiation, fertilization and apoptosis. TGM5 belongs to the transglutaminase superfamily and catalyzes the cross-linking of proteins between glutamine and lysine residues, often resulting in stabilization of protein assemblies. TGM5 is also expressed in the human hair follicle. Defects in TGM5 are associated with acral peeling skin syndrome.

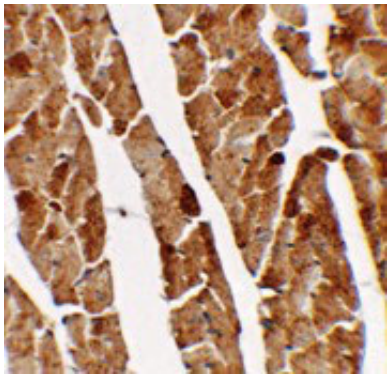
References

Ueki S, et al. Dual functions of transglutaminase in novel cell adhesion. J. Cell Sci. 1996; 109:2727-35.
Candi E, Oddi S, Terrinoni A, et al. Transglutaminase 5 cross-links loricrin, involicrin, and small proline-rich proteins in vitro. J. Biol. Chem. 2001; 276:35014-23.
Thibaut S, Candi E, Pietroni V, et al. Transglutaminase 5 expression in human hair follicle. J. Invest. Dermatol. 2005; 125:581-5
Cassidy AJ, van Steensel MA, Steijlen PM, et al. A homozygous missense mutation in TGM5 abolishes epidermal transglutaminase 5 activity and causes acral peeling skin syndrome. Am. J. Hum. Genet. 2005; 77:909-17.

Images

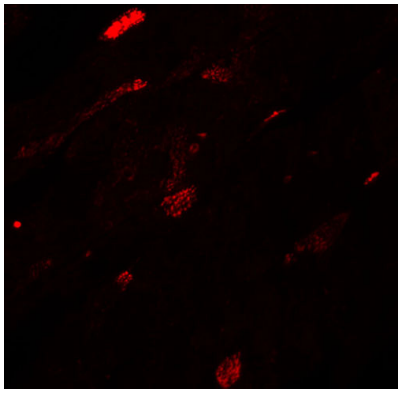


Western blot analysis of TGM5 in rat heart tissue lysate with TGM5 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of TGM5 in mouse heart tissue with TGM5 antibody at 2.5 µg/mL.

Immunofluorescence of TGM5 in mouse heart tissue with TGM5 antibody at 20 µg/mL.



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