

# Product Datasheet

## Transglutaminase 1/TGM1 Antibody - BSA Free NBP2-34062

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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### Publications: 3

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Updated 4/21/2026 v.20.1

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**NBP2-34062**

Transglutaminase 1/TGM1 Antibody - BSA Free

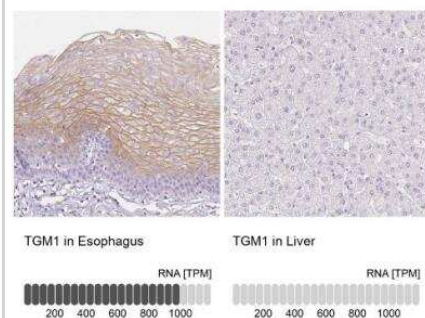
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Host	Rabbit
Gene ID	7051
Gene Symbol	TGM1
Species	Human
Immunogen	This antibody was developed against a recombinant protein corresponding to amino acids: MMDGPRSDVGRWGGNPLQPPTTPSPEPEPEPDGRSRRGGGRSFWARCCGC CSCRNAADDDWGPEPSDSRGRGSSSGTRRPGSRGSDSRPVSRRGSGVNAA

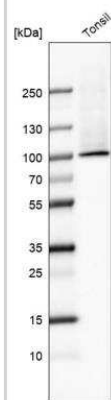
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:2500 - 1:5000, Immunohistochemistry-Paraffin 1:2500 - 1:5000
Application Notes	IHC-Paraffin, HIER pH 6 retrieval is recommended.

**Images**

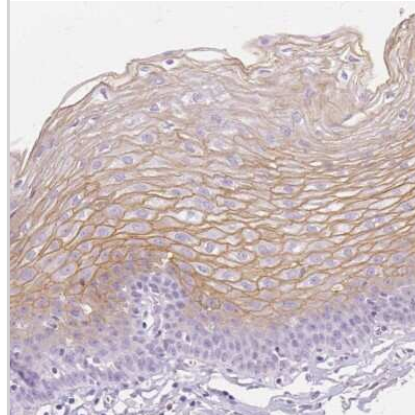
Immunohistochemistry-Paraffin: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Analysis in human esophagus and liver tissues using NBP2-34062 antibody. Corresponding TGM1 RNA-seq data are presented for the same tissues.



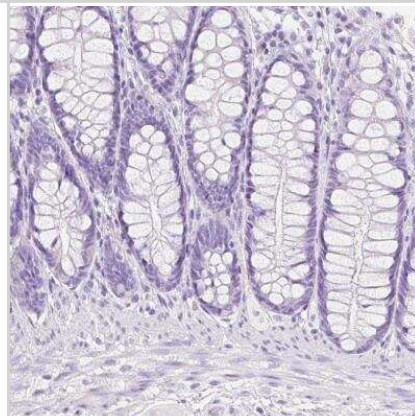
Western Blot: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Analysis in human tonsil tissue.



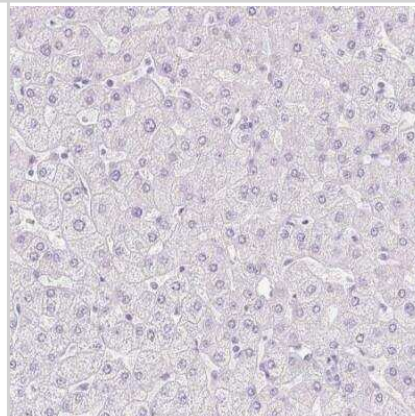
Immunohistochemistry-Paraffin: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Staining of human esophagus shows high expression.



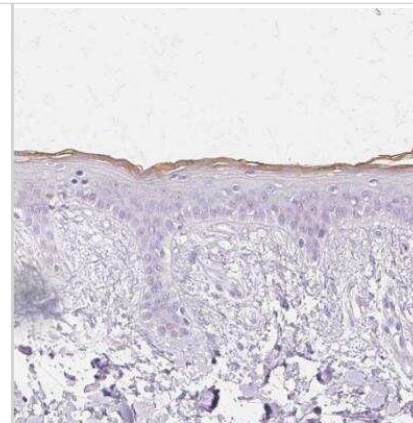
Immunohistochemistry-Paraffin: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Staining of human colon shows no positivity in glandular cells.



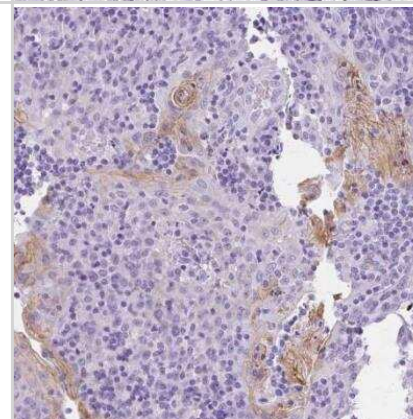
Immunohistochemistry-Paraffin: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Staining of human liver shows no positivity in hepatocytes as expected.



Immunohistochemistry-Paraffin: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Staining of human skin shows moderate membranous positivity in squamous epithelial cells.

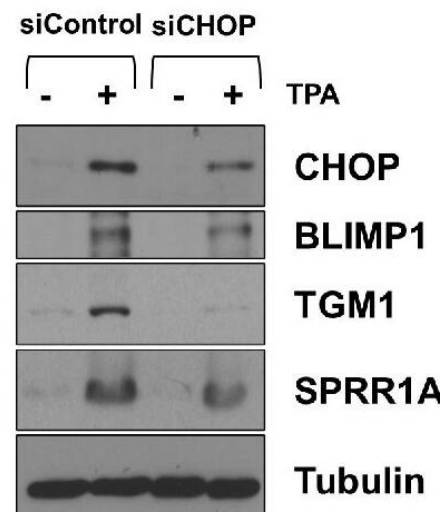


Immunohistochemistry-Paraffin: Transglutaminase 1/TGM1 Antibody [NBP2-34062] - Staining of human tonsil shows moderate membranous positivity in squamous epithelial cells.

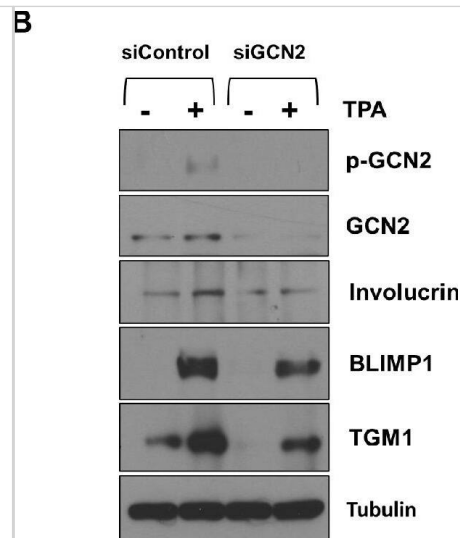


ATF4 and CHOP are required for efficient TPA-induced lytic EBV reactivation and differentiation in WT EBV-infected NOKs. WT EBV-infected NOKs cells were transfected with control siRNA or siRNAs against ATF4 (A and C) or CHOP (B and D) as indicated, and then treated with TPA for 24 hours starting one day after siRNA transfection. (A and B) Immunoblot analyses were performed to examine the effect of ATF4 and CHOP knock-down on lytic EBV proteins BZLF1, BRLF1, BMRF1 and p18 VCA as indicated. (C and D) Immunoblot analyses were performed to examine the effect of ATF4 and CHOP knock-down on TPA-induced differentiation markers BLIMP1, TGM1, and SPRR1A as indicated. Tubulin served as a loading control. The cellular extracts used in (A) and (C) or (B) and (D) were the same. The same ATF4 and Tubulin blots were used in (A) and (C), and the same CHOP and Tubulin blots were used for (B) and (D). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39951426>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

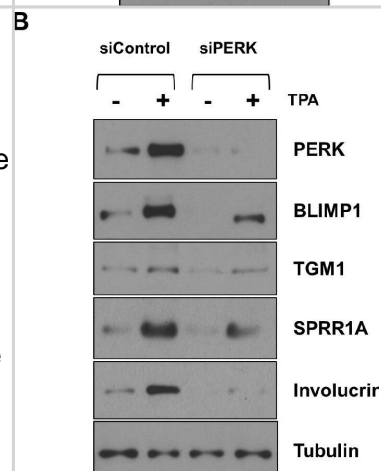
**D**



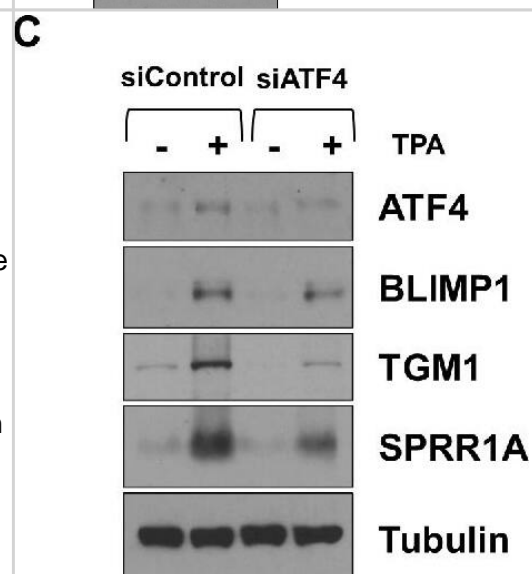
GCN2 is required for TPA-induced lytic EBV reactivation and differentiation in WT EBV-infected NOKs. WT EBV-infected NOKs cells were transfected with control siRNA or siRNAs against GCN2 as indicated, and then treated with TPA for 24 hours starting one day after siRNA transfection. (A) Immunoblot analysis was performed to examine the effect of GCN2 knock-down on proteins involved in the ISR pathway (including p-GCN2, GCN2, p-eIF2 $\alpha$ , eIF2 $\alpha$ , ATF4, and CHOP) and EBV lytic proteins (BZLF1, BRLF1, BMRF1, and p18 VCA). (B) Immunoblot analyses were performed to examine the effect of GCN2 knock-down on differentiation-induced cellular proteins Involucrin, BLIMP1, and TGM1. Tubulin served as a loading control for both panels. The same extracts were used for each panel, and the same GCN2, p-GCN2, and Tubulin blots were used for both panels. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39951426>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



PERK is also required for efficient TPA-induced lytic EBV reactivation and differentiation in WT EBV-infected NOKs. WT EBV-infected NOKs cells were transfected with control siRNA or siRNAs against PERK as indicated, and then treated with TPA for 24 hours starting one day after siRNA transfection. (A) Immunoblot analyses were performed to examine the effect of PERK knock-down on EBV lytic proteins BZLF1, BRLF1, and BMRF1. (B) Immunoblot analyses were performed to examine the effect of PERK knock-down on differentiation-induced cellular proteins BLIMP1, TGM1, Involucrin and SPRR1A. Tubulin served as a loading control for both panels. The same extracts were used for both panels, and the same PERK and Tubulin blots were used for both panels. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39951426>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



ATF4 and CHOP are required for efficient TPA-induced lytic EBV reactivation and differentiation in WT EBV-infected NOKs. WT EBV-infected NOKs cells were transfected with control siRNA or siRNAs against ATF4 (A and C) or CHOP (B and D) as indicated, and then treated with TPA for 24 hours starting one day after siRNA transfection. (A and B) Immunoblot analyses were performed to examine the effect of ATF4 and CHOP knock-down on lytic EBV proteins BZLF1, BRLF1, BMRF1 and p18 VCA as indicated. (C and D) Immunoblot analyses were performed to examine the effect of ATF4 and CHOP knock-down on TPA-induced differentiation markers BLIMP1, TGM1, and SPRR1A as indicated. Tubulin served as a loading control. The cellular extracts used in (A) and (C) or (B) and (D) were the same. The same ATF4 and Tubulin blots were used in (A) and (C), and the same CHOP and Tubulin blots were used for (B) and (D). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39951426>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Eleftheria Girusi, Lukas Muerner, Ludovica Parisi, Silvia Rihs, Stephan von Gunten, Christos Katsaros, Martin Degen Lack of IRF6 Disrupts Human Epithelial Homeostasis by Altering Colony Morphology, Migration Pattern, and Differentiation Potential of Keratinocytes *Frontiers in Cell and Developmental Biology* 2021-09-30 [PMID: 34660580]

Parisi L, Mockenhaupt C, Rihs S et al. Consistent downregulation of the cleft lip/palate-associated genes IRF6 and GRHL3 in carcinomas *Frontiers in oncology* 2022-11-15 [PMID: 36457487] (ICC/IF, Human)

Salameh S, Tissot N, Cache K et al. A perfusable vascularized full-thickness skin model for potential topical and systemic applications *Biofabrication* 2021-07-01 [PMID: 33910175]





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### **Products Related to NBP2-34062**

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NBP2-34062PEP	Transglutaminase 1/TGM1 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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