Product Datasheet

ZMAT1 Antibody - BSA Free
NBP1-81375

Unit Size: 0.1 ml

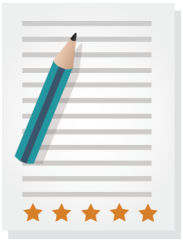
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 1

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-81375

Updated 12/2/2025 v.20.1



NBP1-81375

ZMAT1 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
Target Molecular Weight	75 kDa

Product Description

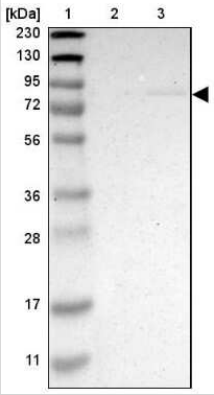
Description	Novus Biologicals Rabbit ZMAT1 Antibody - BSA Free (NBP1-81375) is a polyclonal antibody validated for use in IHC and WB. Anti-ZMAT1 Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	84460
Gene Symbol	ZMAT1
Species	Human
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: NSRKTQDSYQNECADYINVQKARGLEAKTCFRKMEESSLETRRYREVVDSRP RHRMFEQRLPFETFRTYAAPYNISQAMEKQLPHSKKTYDSFQDELEDYIKVQK ARGLDPKTCFRKMRENSVDTHGYREMVDSGP

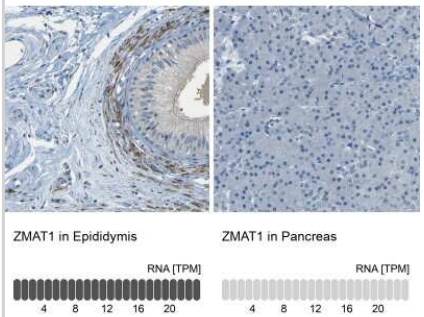
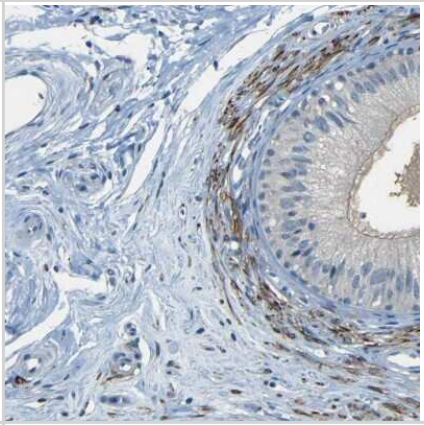
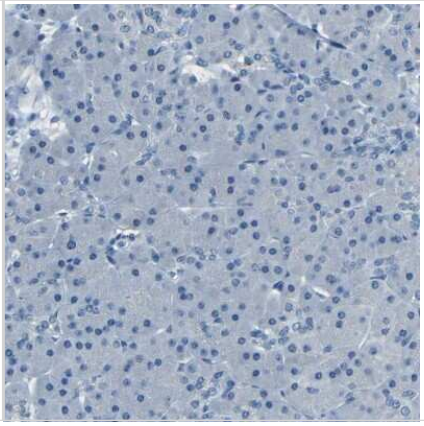
Product Application Details

Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:50 - 1:200, Immunohistochemistry-Paraffin 1:50 - 1:200
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended.

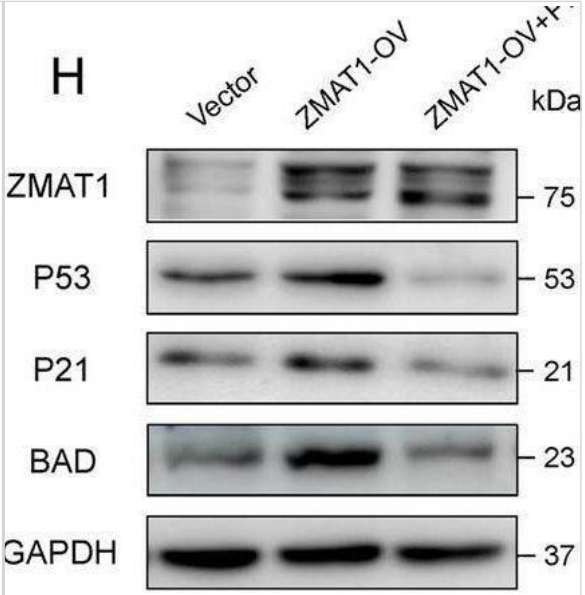
Images

Western Blot: ZMAT1 Antibody [NBP1-81375] - Lane 1: Marker [kDa] 230, 130, 95, 72, 56, 36, 28, 17, 11. Lane 2: Human cell line RT-4. Lane 3: Human cell line U-251MG sp



Immunohistochemistry-Paraffin: ZMAT1 Antibody [NBP1-81375] - Staining in human epididymis and pancreas tissues using anti-ZMAT1 antibody. Corresponding ZMAT1 RNA-seq data are presented for the same tissues.	
Immunohistochemistry-Paraffin: ZMAT1 Antibody [NBP1-81375] - Staining of human epididymis shows high expression.	
Immunohistochemistry-Paraffin: ZMAT1 Antibody [NBP1-81375] - Staining of human pancreas shows low expression as expected.	

ZMAT1 functions in a p53-dependent manner. A Gene set enrichment analysis (GSEA) of RNA sequencing on SW1990/Vector and SW1990/ZMAT1-OV cells groups. B Heatmap of RNA sequencing showed differential expression levels of key nodes in p53-assicoated cell cycle and apoptosis pathways. C-D RT-qPCR and western blot were used to detect the p53 levels in ZMAT1 over-expressed (C) and knockdown cells (D). E Double-label immunofluorescence staining for the intracellular localization of ZMAT1 and p53 in SW1990 cells. F luciferase activity assays were performed on 293 T cells with co-transfection of pGL3-p53 with 0.01 μg, 0.05 μg, 0.1 μg, 0.5 μg and 1 μg of vector encoding ZMAT1. G SW1990/ZMAT1-OV cells were treated with Pifithrin-α for 24 h and the protein levels of ZMAT1, p53, p21, and BAD were analyzed by immunoblotting with the indicated antibodies. H CCK-8 assays were performed on SW1990/ZMAT1-OV cells after treating with Pifithrin-α for 24 h. I Colony formation assays were performed on SW1990/ZMAT1-OV cells after treating with Pifithrin-α for 24 h. All * P-value < 0.05, ** P-value < 0.01, *** P-value < 0.001. P-values were assessed using two-tailed t-tests and ANOVA followed by Dunnett's tests for multiple comparison in B, C, D, E, G, J and K. All figures represent mean +/- SD from three independent experiments Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35392973), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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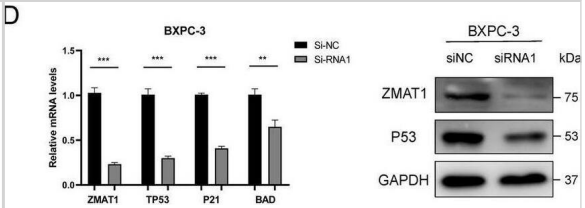

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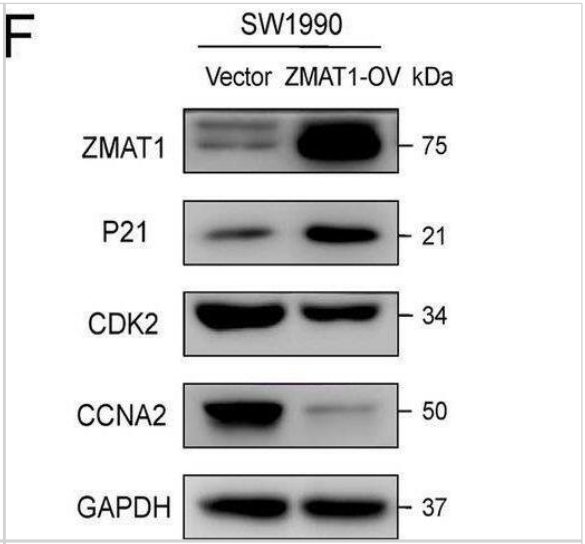

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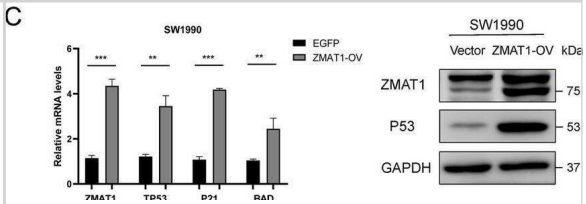

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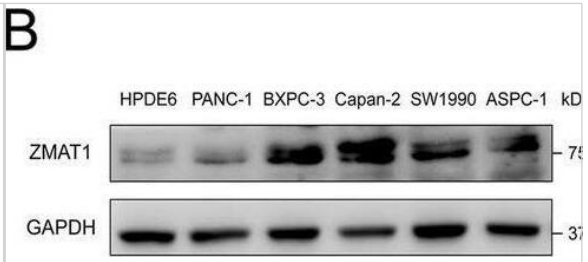

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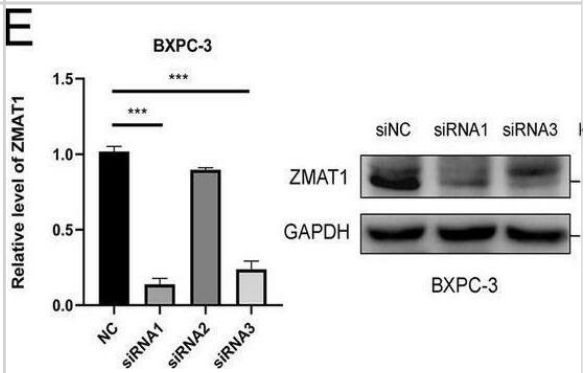

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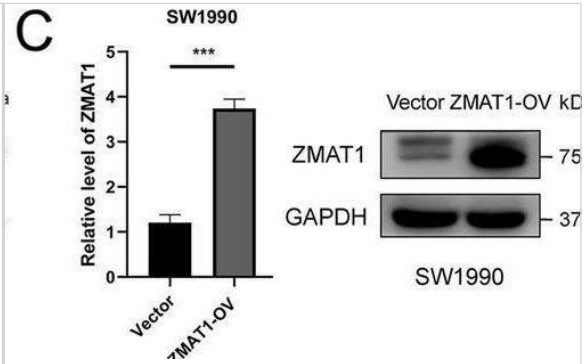

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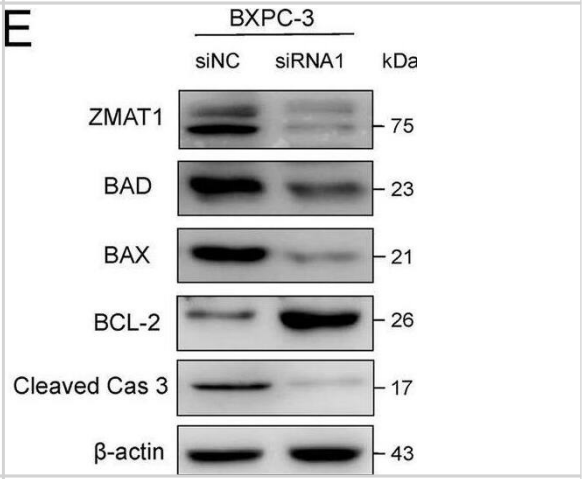

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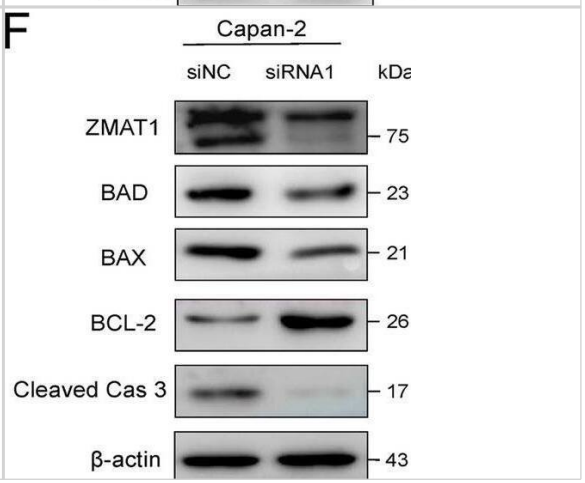
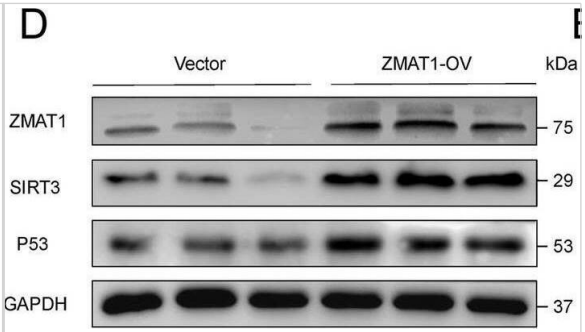


ZMAT1 correlates with p53 in Pancreatic Ductal Adenocarcinoma (PDAC). A BALB/c-nudes (n = 6 per group) were sacrificed 60 days after the injection and tumors dissected from respective groups were shown. B Tumor growth curves after the injection of SW1990/Vector cells and SW1990/ZMAT1-OV cells. Tumor volume was calculated every 10 days. C Tumor weight was measured in ZMAT1-OV and control groups. D The protein levels of ZMAT1, SIRT3 and p53 of tumors were analyzed by immunoblotting with the indicated antibodies. E IHC staining of ZMAT1, SIRT3, p53, Ki67 and Tunel in tumors from ZMAT1-OV and control groups. F Representative images of double-label immunofluorescence (IF) staining of ZMAT1 and p53 in 60 PDAC tissues. G IF staining showed ZMAT1 expression level highly correlated with p53 expression. H Kaplan–Meier analysis in PDAC patients grouped according to the expression levels of ZMAT1 and p53 showed that PDAC patients with high ZMAT1/high p53 expression had the longest overall survival among all the groups. I A schematic diagram for the role of the ZMAT1-SIRT3-p53 axis in regulation of cell cycle and apoptosis in PDAC. All * P-value < 0.05, ** P-value < 0.01, *** P-value < 0.001. Scale bars: 200 μm. P-values were assessed using two-tailed t-tests and ANOVA followed by Dunnett's tests for multiple comparison in B-C. Spearman's correlation was performed in G. Kaplan–Meier analyses and log-rank tests were conducted in H Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35392973), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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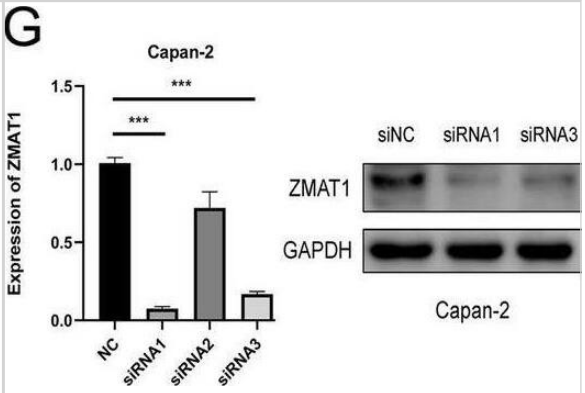

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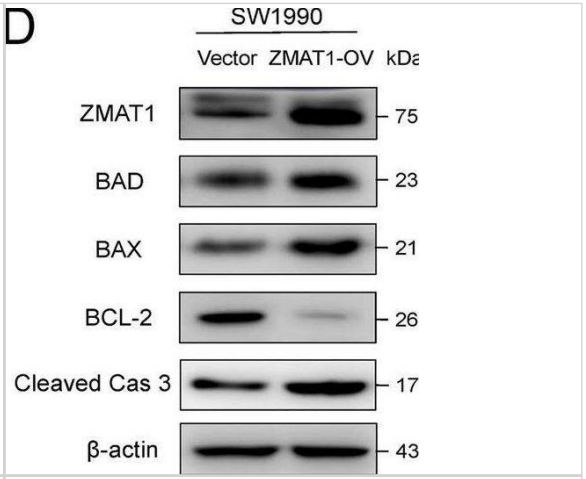

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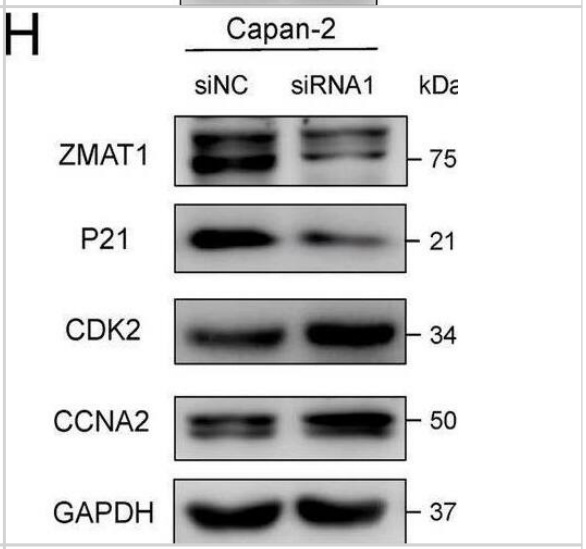

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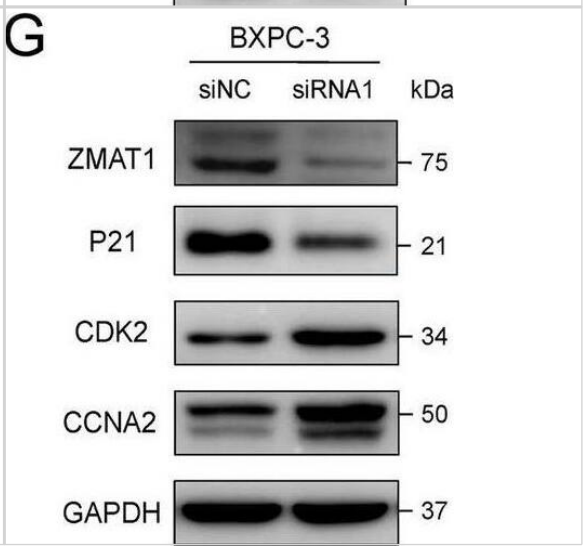
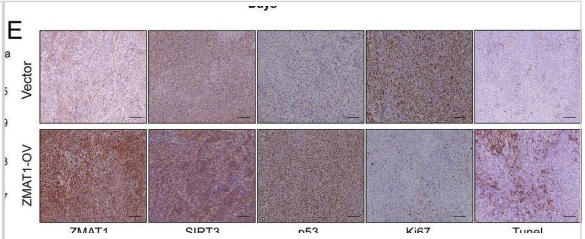
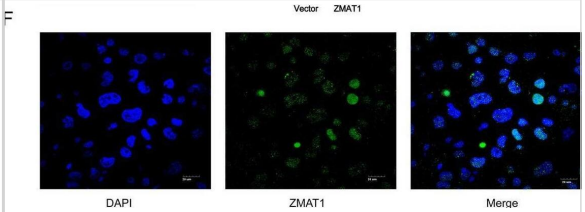


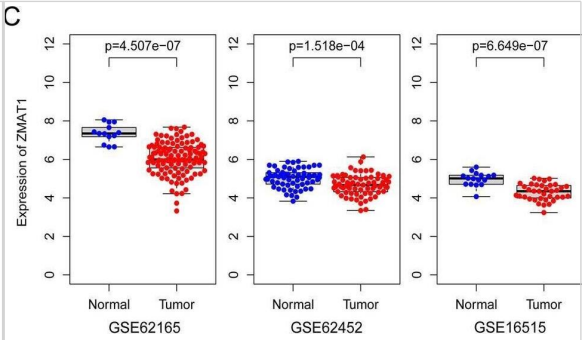
ZMAT1 correlates with p53 in Pancreatic Ductal Adenocarcinoma (PDAC). A BALB/c-nudes (n = 6 per group) were sacrificed 60 days after the injection and tumors dissected from respective groups were shown. B Tumor growth curves after the injection of SW1990/Vector cells and SW1990/ZMAT1-OV cells. Tumor volume was calculated every 10 days. C Tumor weight was measured in ZMAT1-OV and control groups. D The protein levels of ZMAT1, SIRT3 and p53 of tumors were analyzed by immunoblotting with the indicated antibodies. E IHC staining of ZMAT1, SIRT3, p53, Ki67 and Tunel in tumors from ZMAT1-OV and control groups. F Representative images of double-label immunofluorescence (IF) staining of ZMAT1 and p53 in 60 PDAC tissues. G IF staining showed ZMAT1 expression level highly correlated with p53 expression. H Kaplan–Meier analysis in PDAC patients grouped according to the expression levels of ZMAT1 and p53 showed that PDAC patients with high ZMAT1/high p53 expression had the longest overall survival among all the groups. I A schematic diagram for the role of the ZMAT1-SIRT3-p53 axis in regulation of cell cycle and apoptosis in PDAC. All * P-value < 0.05, ** P-value < 0.01, *** P-value < 0.001. Scale bars: 200 μm. P-values were assessed using two-tailed t-tests and ANOVA followed by Dunnett's tests for multiple comparison in B-C. Spearman's correlation was performed in G. Kaplan–Meier analyses and log-rank tests were conducted in H Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35392973), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



ZMAT1 functions in a p53-dependent manner. A Gene set enrichment analysis (GSEA) of RNA sequencing on SW1990/Vector and SW1990/ZMAT1-OV cells groups. B Heatmap of RNA sequencing showed differential expression levels of key nodes in p53-assicoated cell cycle and apoptosis pathways. C-D RT-qPCR and western blot were used to detect the p53 levels in ZMAT1 over-expressed (C) and knockdown cells (D). E Double-label immunofluorescence staining for the intracellular localization of ZMAT1 and p53 in SW1990 cells. F luciferase activity assays were performed on 293 T cells with co-transfection of pGL3-p53 with 0.01 μg, 0.05 μg, 0.1 μg, 0.5 μg and 1 μg of vector encoding ZMAT1. G SW1990/ZMAT1-OV cells were treated with Pifithrin-α for 24 h and the protein levels of ZMAT1, p53, p21, and BAD were analyzed by immunoblotting with the indicated antibodies. H CCK-8 assays were performed on SW1990/ZMAT1-OV cells after treating with Pifithrin-α for 24 h. I Colony formation assays were performed on SW1990/ZMAT1-OV cells after treating with Pifithrin-α for 24 h. All * P-value < 0.05, ** P-value < 0.01, *** P-value < 0.001. P-values were assessed using two-tailed t-tests and ANOVA followed by Dunnett's tests for multiple comparison in B, C, D, E, G, J and K. All figures represent mean +/- SD from three independent experiments Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35392973), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



ZMAT1 is down-regulated and correlates with unfavorable clinical characteristics and adverse outcome in Pancreatic Ductal Adenocarcinoma (PDAC). A Down-regulation of ZMAT1 in PDAC was identified in GEPIA database. B Down-regulation of ZMAT1 was identified in PDAC in Oncomine database (Pei's dataset and Ishikawa's dataset). C Down-regulation of ZMAT1 was identified in PDAC in three individual GEO datasets (GSE62165, GSE62452 and GSE16515). D The mRNA low-expression levels of ZMAT1 were identified in PDAC tissues and normal pancreas tissues of 25 samples. E Representative images of ZMAT1 staining in PDAC specimens and normal pancreas tissues. F Immunohistochemistry staining showed the protein levels of ZMAT1 were down-regulated in PDAC tissues. G ZMAT1 expression of PDAC was significantly correlated with differentiation, TNM stage, CA19-9 index and lymph nodes metastasis. H Multivariate Cox regression analyses showed low expression of ZMAT1 was independent risk factor for overall survival (OS) and disease-free survival (DFS) of 122 PDAC patients from validation cohort. I-J Kaplan–Meier analyses showed PDAC patients with high expression of ZMAT1 had superior OS and DFS than those with low expression in both TCGA cohort (I) and validation cohort (J). T, tumor; N, normal; OS, overall survival; DFS, disease-free survival. CA19-9, carbohydrate antigen 19–9. All * P-value < 0.05, ** P-value < 0.01, *** P-value < 0.001. Scale bars: 200 μm. P-values were determined by Non-parametric Mann–Whitney U-test in A-C. P-values were assessed by two-tailed t-tests in D and F. P-values were determined by χ2 tests or Fisher's exact tests in G. The Hazard Ratios (HR) and P-values by the log-rank (Mantel-Cox) test are calculated in H-J Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35392973), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

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