

Product Datasheet

KLF4 Antibody - BSA Free NBP2-24749SS

Unit Size: 0.025 mg

Store at -20C. Avoid freeze-thaw cycles.

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NBP2-24749SS

KLF4 Antibody - BSA Free

Product Information

Unit Size	0.025 mg
Concentration	1.0 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Protein G purified
Buffer	PBS

Product Description

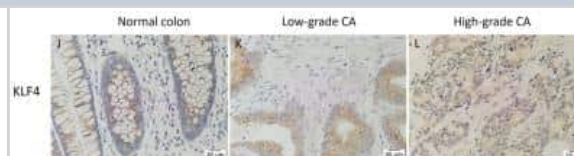
Description	Novus Biologicals Rabbit KLF4 Antibody - BSA Free (NBP2-24749) is a polyclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-KLF4 Antibody: Cited in 25 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	9314
Gene Symbol	KLF4
Species	Human, Mouse, Rat, Primate
Reactivity Notes	The amino acid sequence used as immunogen for the antibody is 100% homologous in human and chimpanzee. Mouse reactivity reported in scientific publication.
Immunogen	A portion of amino acids 1-50 of human KLF4 was used as the immunogen for this antibody.

Product Application Details

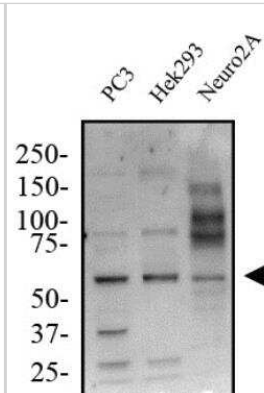
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1-3 ug/ml, Flow Cytometry 1 ug/10 ⁶ cells, Immunohistochemistry reported in scientific literature (PMID 34428252; 30901290), Immunocytochemistry/ Immunofluorescence 1:10-1:500. Use reported in scientific literature (PMID 34428252), Immunohistochemistry-Paraffin 10 ug/ml

Images

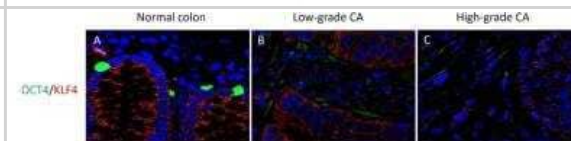
Immunohistochemistry: KLF4 Antibody [NBP2-24749] - DAB IHC staining. Representative 3,3-diaminobenzidine immunohistochemical-stained images showing protein expression of induced-pluripotent stem cell marker KLF4 (J-L, brown) in normal colon (J), low-grade (K) and high-grade (L) colon adenocarcinoma tissue samples. Nuclei were counter-stained with hematoxylin (A-O, blue). Original magnification: 400x. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0221963](https://doi.org/10.1371/journal.pone.0221963)) licensed under a CC-BY license.



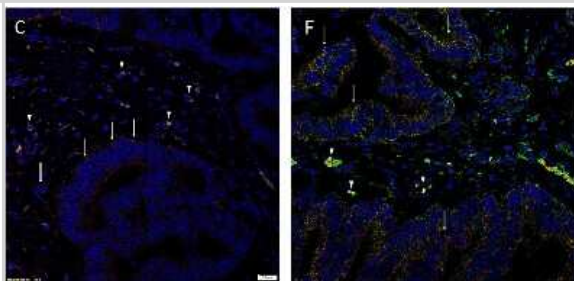
Western Blot: KLF4 Antibody [NBP2-24749] - Total protein from Human PC3, Hek293 and Mouse Neuro2A cells was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/ml anti-KLF4 in 1% non-fat milk in TBST and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.



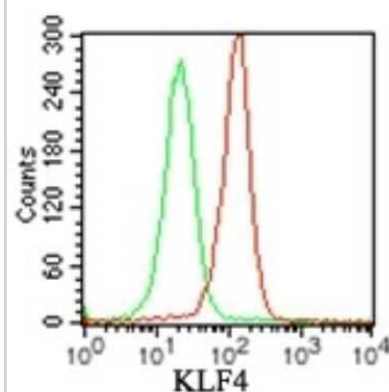
Immunohistochemistry: KLF4 Antibody [NBP2-24749] - IF IHC staining. Representative immunofluorescence immunohistochemical-stained images showing protein expression of induced-pluripotent stem cell markers OCT4 (A-C, green), KLF4 (A-C, red) in normal colon (A), low-grade (B) and high-grade (C) colon adenocarcinoma tissue samples. Cell nuclei were counter-stained with 4', 6'-diamidino-2-phenylindole (A-C, blue). Original magnification: 400x. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0221963](https://doi.org/10.1371/journal.pone.0221963)) licensed under a CC-BY license.



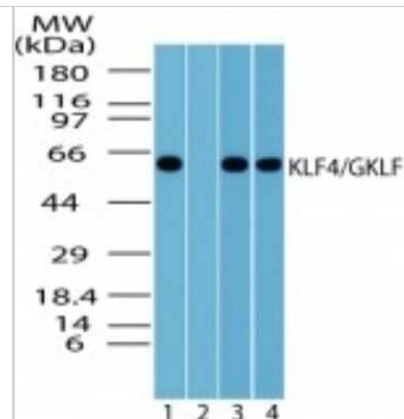
Immunohistochemistry-Paraffin: KLF4 Antibody [NBP2-24749] - Representative immunofluorescence immunohistochemical-stained sections of colon adenocarcinoma metastasis to the liver showing the expression of KLF4 [red] on the cells within the tumor nests (TNs) [thin arrows] and those within the peritumoral stroma [arrowheads]. OCT4 [green] was expressed on the KLF4+ [green, arrowheads] cells within the peritumoral stroma, and also cells within the peritumoral stroma that expressed KLF4 [red, thick arrows] not expressing OCT4. c-Myc was expressed by cells within the TNs [green, arrows] and those within the peritumoral stroma [arrowheads]. The c-Myc+ population within the peritumoral stroma also expressed KLF4 [red]. Cell nuclei were counterstained with DAPI [blue]. Scale bars: 20 um. Image collected and cropped by CiteAb from the following publication (<https://journal.frontiersin.org/article/10.3389/fsurg.2017.00076/full>), licensed under a CC-BY license.



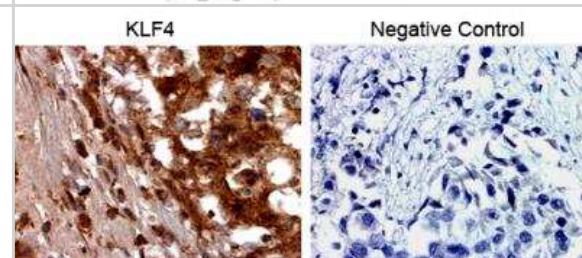
Flow Cytometry: KLF4 Antibody [NBP2-24749] - Intracellular analysis using KLF4 antibody. Balb/c mouse splenocytes were probed using 1 ug of KLF4 antibody (red) and 1 ug of isotype control was used for this test, and an anti-rabbit IgG PE conjugated secondary .



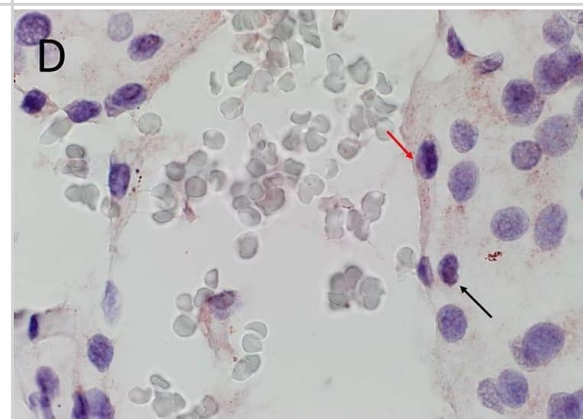
Western Blot: KLF4 Antibody [NBP2-24749] - Lysate from human 293 cells in the (1) absence and (2) presence of immunizing peptide, (3) mouse NIH 3T3, and (4) RAW cells probed with KLF4 antibody at 1 ug/ml (293) and 2 ug/ml (NIH 3T3 and RAW). Goat anti-rabbit IgG HRP secondary and PicoTest ECL substrate solution were used for this test.



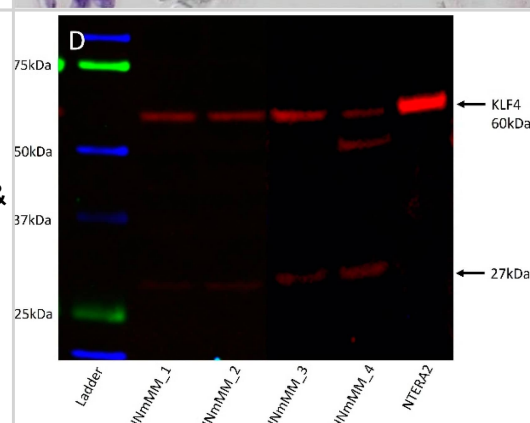
Immunohistochemistry-Paraffin: KLF4 Antibody [NBP2-24749] - Breast cancer tissues embedded in paraffin. Negative control is no primary antibody. IHC-P image submitted by a verified customer review.



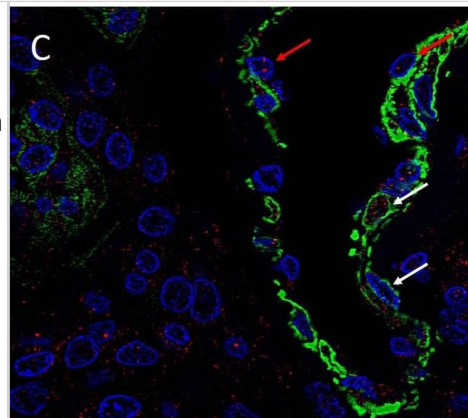
Immunohistochemistry-Paraffin: KLF4 Antibody [NBP2-24749] - Representative 3,3-diaminobenzidine immunohistochemical stained images of WHO grade I meningioma for OCT4 (A, brown), NANOG (B, purple), SOX2 (C, brown), KLF4 (D, purple) & c-MYC (E, brown) expressed on the endothelial (red arrows) & pericyte (black arrows) layers. Cell nuclei were counterstained with hematoxylin (A-E, blue). Original magnification: 400X. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30417000>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



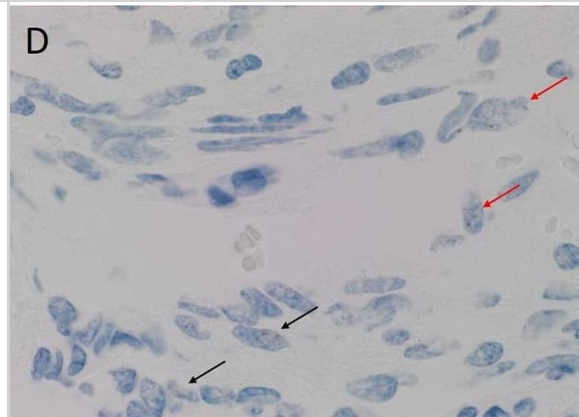
Western Blot: KLF4 Antibody [NBP2-24749] - Representative Western blot images of total protein extracted from four head & neck metastatic malignant melanoma-derived primary cell lines probed for induced pluripotent stem cell markers. Blots were probed for OCT4 (A), NANOG (B), SOX2 (C), KLF4 (D), & c-MYC (E) & detected with HRP conjugated goat anti-rabbit antibody. α -Tubulin was used as the loading control (F) & detected using HRP conjugated mouse IgGk binding protein. Arrows indicate the presence of the proteins with their expected band sizes. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/32019273>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



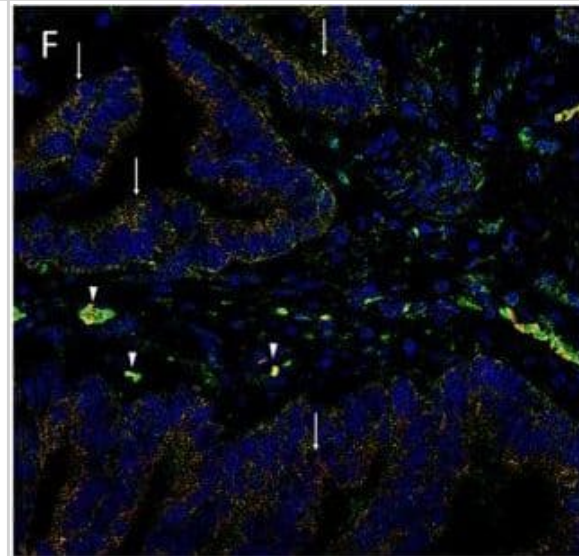
Immunohistochemistry: KLF4 Antibody [NBP2-24749] - Representative immunofluorescence immunohistochemical stained images of WHO grade I meningioma demonstrating the expression of SOX2 (A, red), NANOG (B, red), KLF4 (C, red), OCT4 (D, green) & c-MYC (E, green) on both the SMA+ (A–C, red, red arrows) pericyte layer, & the ERG+ endothelial layer (D,E, red, white arrows). Cell nuclei were counterstained with 4', 6'-diamino-2-phenylindole (A–F), blue. Original magnification: 600X. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30417000>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry-Paraffin: KLF4 Antibody [NBP2-24749] - Representative colorimetric in situ hybridization stained images of WHO grade I meningioma demonstrating mRNA transcript expression for OCT4 (A, brown), NANOG (B, brown), SOX2 (C, brown), KLF4 (D, brown) & c-MYC (E, brown). Nuclei were counterstained with hematoxylin (A–E, blue). Original magnification: 1,000X. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30417000>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

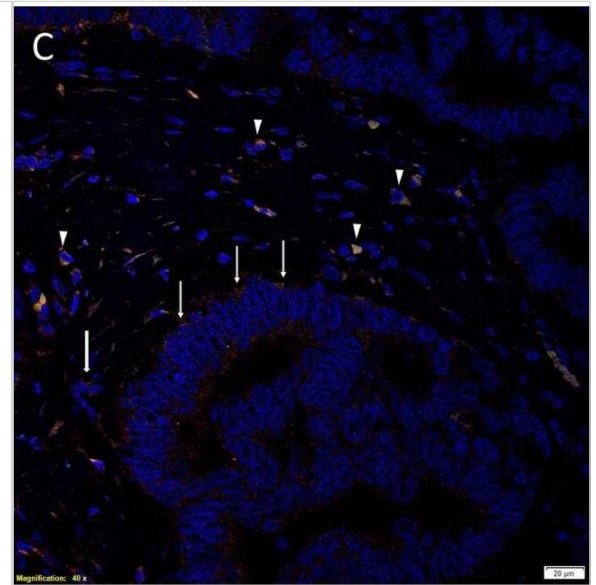


Immunocytochemistry/ Immunofluorescence: KLF4 Antibody [NBP2-24749] - Representative immunofluorescence immunohistochemical-stained sections of colon adenocarcinoma metastasis to the liver showing the expression of SOX2 [(A,D), red], NANOG [(B,E), red], KLF4 [(C,F), red], & c-Myc [(D–F), green] on the cells within the tumor nests (TNs) [(A–F), thin arrows] & those within the peritumoral stroma [(A–F), arrowheads]. OCT4 [(A–C), green] was expressed on the SOX2+ [(A), green, arrowheads], NANOG+ [(B), green, arrowheads], & KLF4+ [(C), green, arrowheads] cells within the peritumoral stroma. There were also cells within the peritumoral stroma that expressed SOX2 [(A), red, thick arrows], NANOG [(B), red, thick arrows] & KLF4 [(C), red, thick arrows] that did not express OCT4. c-Myc was expressed by cells within the TNs [(D–F), green, arrows] & those within the peritumoral stroma [(D–F), arrowheads]. The c-Myc+ population within the peritumoral stroma also expressed SOX2 [(D), red], NANOG [(E), red], & KLF4 [(F), red]. Cell nuclei were counterstained with 4',6'-diamidino-2-phenylindole [(A–F), blue]. Scale bars: 20 µm. Image collected & cropped by CiteAb from the following publication (<http://journal.frontiersin.org/article/10.3389/fsurg.2017.00076/full>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: KLF4 Antibody [NBP2-24749] - Representative immunofluorescence immunohistochemical-stained sections of colon adenocarcinoma metastasis to the liver showing the expression of SOX2 [(A,D), red], NANOG [(B,E), red], KLF4 [(C,F), red], & c-Myc [(D-F), green] on the cells within the tumor nests (TNs) [(A-F), thin arrows] & those within the peritumoral stroma [(A-F), arrowheads]. OCT4 [(A-C), green] was expressed on the SOX2+ [(A), green, arrowheads], NANOG+ [(B), green, arrowheads], & KLF4+ [(C), green, arrowheads] cells within the peritumoral stroma. There were also cells within the peritumoral stroma that expressed SOX2 [(A), red, thick arrows], NANOG [(B), red, thick arrows] & KLF4 [(C), red, thick arrows] that did not express OCT4. c-Myc was expressed by cells within the TNs [(D-F), green, arrows] & those within the peritumoral stroma [(D-F), arrowheads]. The c-Myc+ population within the peritumoral stroma also expressed SOX2 [(D), red], NANOG [(E), red], & KLF4 [(F), red]. Cell nuclei were counterstained with 4',6'-diamidino-2-phenylindole [(A-F), blue]. Scale bars: 20 μ m. Image collected & cropped by CiteAb from the following publication

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Publications

Yamamoto H, Uchida Y, Chiba T et al. Transcriptome analysis of sevoflurane exposure effects at the different brain regions PLOS ONE 2020-12-15 [PMID: 33320849] (Western Blot)

Kilmister EJ, Patel J, van Schaijik B et al. Cancer Stem Cell Subpopulations Are Present Within Metastatic Head and Neck Cutaneous Squamous Cell Carcinoma Frontiers in Oncology 2020-07-30 [PMID: 32850316] (Western Blot)

Luke Krishnan CS, Brasch HD, Patel J et al. Stemness-Associated Markers Are Expressed in Extracranial Arteriovenous Malformation Frontiers in Surgery 2021-03-19 [PMID: 33816543] (Western Blot)

Shlepova OV, Shulepko MA, Shipunova VO et al. Selective targeting of $\alpha 7$ nicotinic acetylcholine receptor by synthetic peptide mimicking loop I of human SLURP-1 provides efficient and prolonged therapy of epidermoid carcinoma in vivo Frontiers in cell and developmental biology 2023-10-03 [PMID: 37854069] (WB, Mouse)

Details:

1:2000 dilution

Imai T, Van TM, Pasparakis M, Polykratis A Smooth muscle cell specific NEMO deficiency inhibits atherosclerosis in ApoE^{-/-} mice Scientific reports 2022-07-22 [PMID: 35869246] (WB, Mouse)

Paterson C, Kilmister EJ, Brasch HD Et al. Cell Populations Expressing Stemness-Associated Markers in Lung Adenocarcinoma Life (Basel, Switzerland) 2021-10-18 [PMID: 34685477] (IHC-P, Human)

Munro MJ, Peng L, Wickremesekera SK, Tan ST Colon adenocarcinoma-derived cells possessing stem cell function can be modulated using renin-angiotensin system inhibitors PLoS one 2021-08-24 [PMID: 34428252] (ICC/IF, IF/IHC)

Williams J, Brasch H, Bockett N et al. Embryonic Stem Cell-like Population in Hypertrophic Port-wine Stain Journal of Vascular Anomalies 2021-02-11 (WB, IHC-P, Human)

Yoganandarajah V, Patel J et al. Identification of Cancer Stem Cell Subpopulations in Head and Neck Metastatic Malignant Melanoma. Cells 2020-01-30 [PMID: 32019273] (WB, IF/IHC, Human)

Kilmister E, Patel J, Bockett N et al. Embryonic stem cell-like subpopulations are present within Schwannoma Journal of Clinical Neuroscience 2020-11-01 [PMID: 33222917] (IF/IHC, Human)

Munro MJ, Peng L, Wickremesekera SK, Tan ST Colon adenocarcinoma-derived cells that express induced-pluripotent stem cell markers possess stem cell function PLoS ONE 2020-05-19 [PMID: 32428045] (WB, Human)

Zhou J, Liu S, Wang Y et al. Salinomycin effectively eliminates cancer stem-like cells and obviates hepatic metastasis in uveal melanoma Mol. Cancer 2019-11-13 [PMID: 31718679] (WB, Human)

More publications at <http://www.novusbio.com/NBP2-24749>





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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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