

Product Datasheet

BYSL Antibody - BSA Free NBP1-89501

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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NBP1-89501

BYSL Antibody - BSA Free

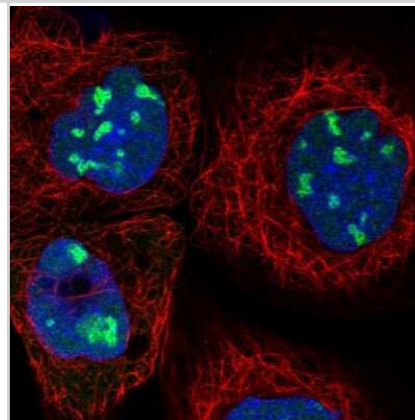
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium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

Product Description	
Description	Novus Biologicals Rabbit BYSL Antibody - BSA Free (NBP1-89501) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-BYSL Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	705
Gene Symbol	BYSL
Species	Human, Mouse
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: LDALVFHFLGFRTEKRELPLVWHQCLLTLVQRYKADLATDQKEALLELLRLQPH PQLSPEIRRELQSAVPRDVEDVPITVE

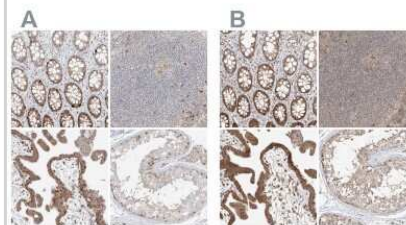
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:200-1:500
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100.

Images

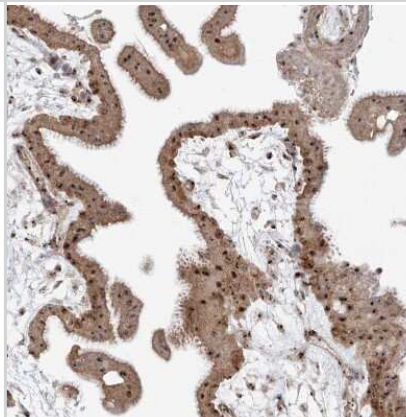
Immunocytochemistry/Immunofluorescence: BYSL Antibody [NBP1-89501] - Immunofluorescent staining of human cell line A-431 shows localization to nucleus & nucleoli. Antibody staining is shown in green.



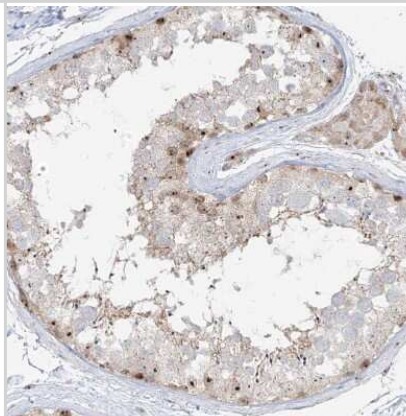
Immunohistochemistry-Paraffin: BYSL Antibody [NBP1-89501] - Staining of human gastrointestinal, lymphoid tissues, placenta and testis using Anti-BYSL antibody NBP1-89501 (A) shows similar protein distribution across tissues to independent antibody NBP1-89500 (B).



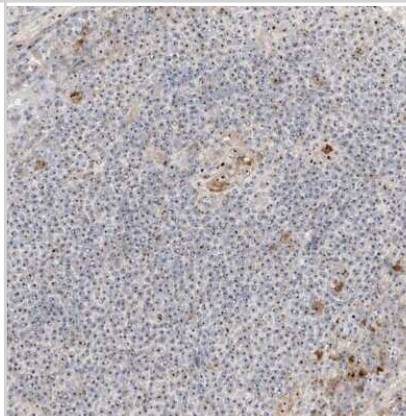
Immunohistochemistry-Paraffin: BYSL Antibody [NBP1-89501] - Staining of human placenta shows strong positivity in nucleoli in trophoblastic cells.



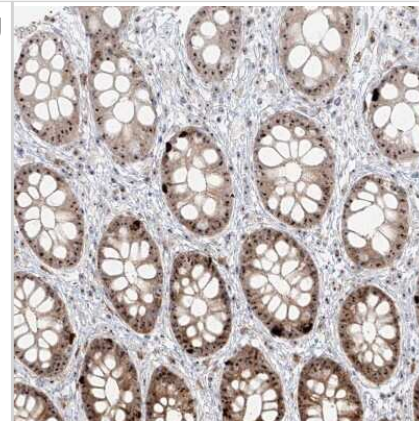
Immunohistochemistry-Paraffin: BYSL Antibody [NBP1-89501] - Staining of human testis shows moderate positivity in nucleoli in cells in seminiferous ducts.



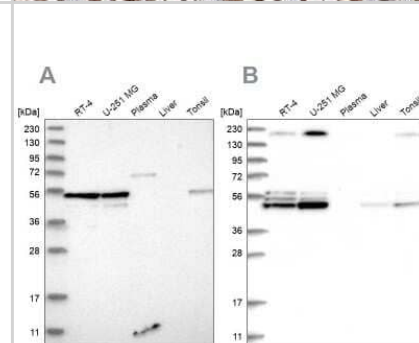
Immunohistochemistry-Paraffin: BYSL Antibody [NBP1-89501] - Staining of human lymph node shows strong positivity in nucleoli in lymphoid cells.



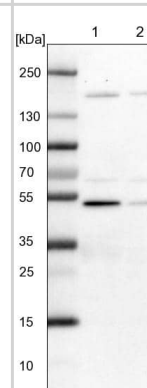
Immunohistochemistry-Paraffin: BYSL Antibody [NBP1-89501] - Staining of human rectum shows strong positivity in nucleoli in glandular cells.



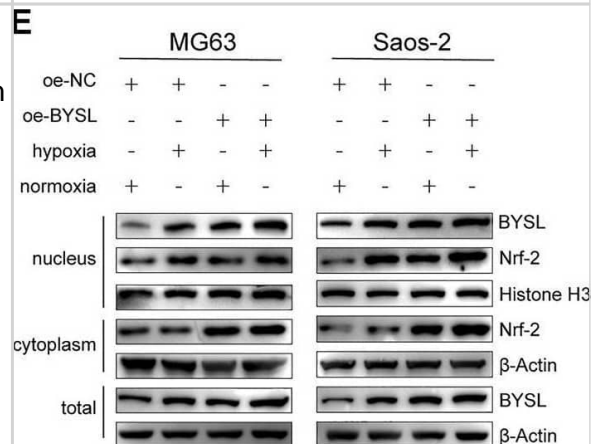
Western Blot: BYSL Antibody [NBP1-89501] - Analysis using Anti-BYSL antibody NBP1-89501 (A) shows similar pattern to independent antibody NBP1-89500 (B).



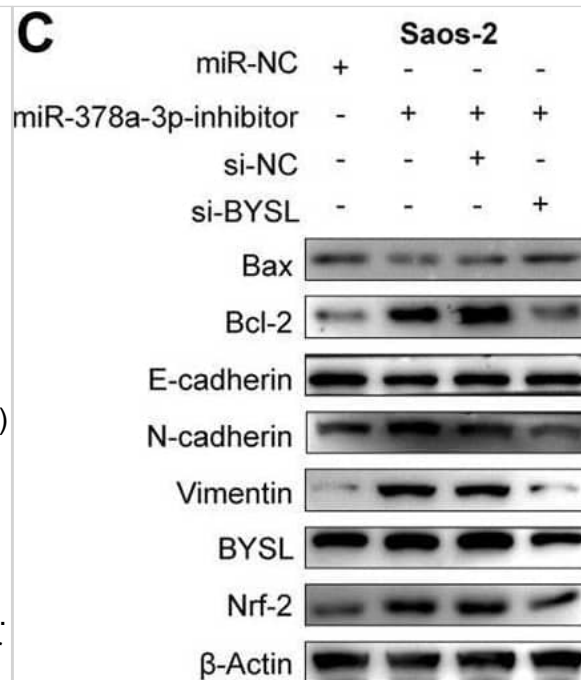
Lane 1: NIH-3T3 cell lysate (Mouse embryonic fibroblast cells)
Lane 2: NBT-II cell lysate (Rat Wistar bladder tumour cells)



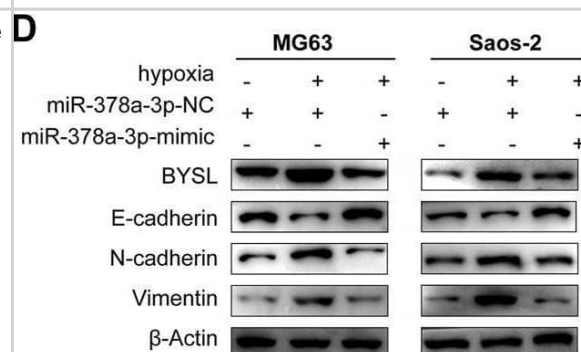
BYSL is related to the poor prognosis of patients with osteosarcoma. (A) Cluster heatmap of differentially expressed genes in GSE126209. (B) Overall survival was compared between osteosarcoma patients with high and low BYSL expression in TCGA database. (C) Immunocytochemical staining of BYSL in osteosarcoma tissues (n = 51, scale bar = 50 um). (D) Overall survival was compared between osteosarcoma patients with high and low BYSL expression in an in-house cohort. (E) MG63 and Saos-2 cells were transfected with the control plasmid (oe-NC) or BYSL overexpression plasmid (oe-BYSL), and then cultured under hypoxic or normoxic conditions. After nuclear and cytosolic separation, protein levels of Nrf2, BYSL, Histone H3, and β -Actin were measured by western blot. (F) MG63 and Saos-2 cells were transfected with control plasmid (oe-NC), BYSL overexpression plasmid (oe-BYSL), si-control (si-NC), or si-Nrf2, and then cultured under hypoxic conditions. The protein levels of Nrf2, E-cadherin, N-cadherin, Vimentin, and β -Actin were measured by western blot. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35154253>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



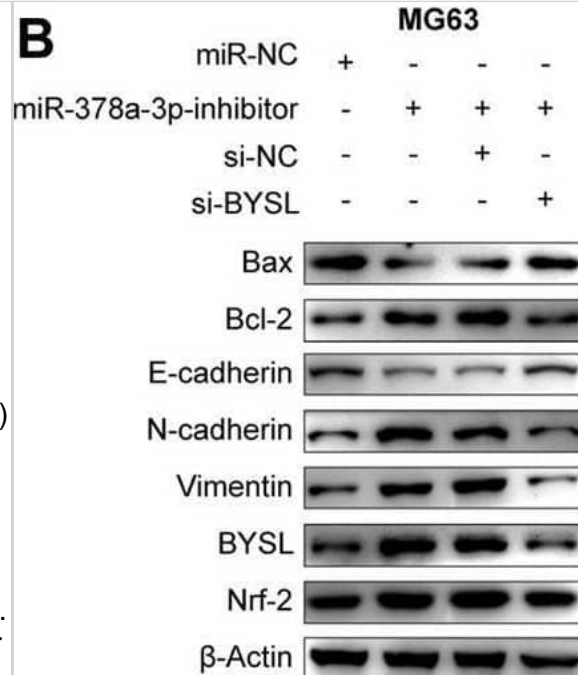
BYSL knockdown partially abolishes miR-378a-3p-mediated osteosarcoma cell epithelial-to-mesenchymal transition (EMT), invasion, migration, and apoptosis under normoxia. (A) MG63 and Saos-2 cells were transfected with control-inhibitor (miR-NC) or miR-378a-3p-inhibitor, and then cultured under normoxic conditions. The RNA level of miR-378a-3p was measured by RT-qPCR. (B,C) MG63 and Saos-2 cells were transfected with control-inhibitor (miR-NC), miR-378a-3p-inhibitor, si-control (si-NC), or si-BYSL, and then cultured under normoxic conditions. The protein levels of Bax, Bcl-2, E-cadherin, N-cadherin, vimentin, BYSL and Nrf2 were measured by western blot. (D) MG63 and Saos-2 cells were transfected with control-inhibitor (miR-NC), miR-378a-3p-inhibitor, si-control (si-NC), or si-BYSL, and then cultured under normoxic conditions. Cell apoptosis was measured by flow cytometry. (E) MG63 and Saos-2 cells were transfected with control-inhibitor (miR-NC), miR-378a-3p-inhibitor, si-control (si-NC), or si-BYSL, and then cultured under normoxic conditions. Cell invasion was measured by matrigel invasion assay. Scale bar = 100 μ m. (F) MG63 and Saos-2 cells were transfected with control-inhibitor (miR-NC), miR-378a-3p-inhibitor, si-control (si-NC), or si-BYSL, and then cultured under normoxic conditions. Cell migration was measured by scratch wound healing assay. Scale bar = 500 μ m. The data are presented as the mean \pm SD. * $p < 0.05$. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35154253>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



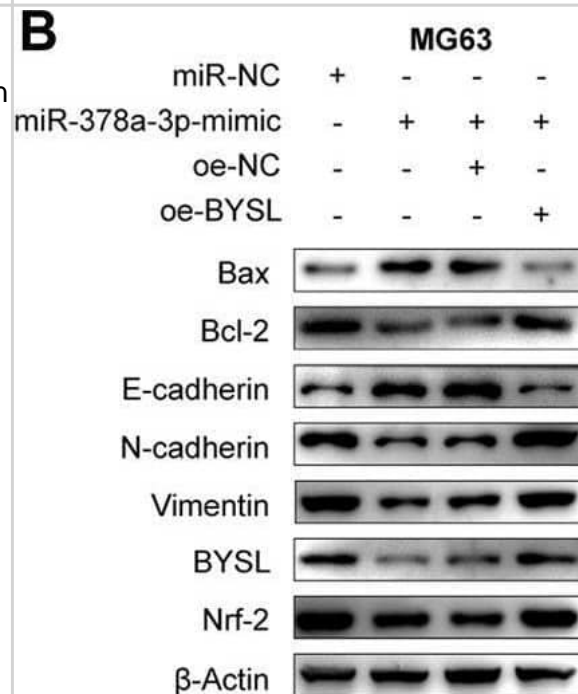
BYSL is a direct target of miR-378a-3p. (A) MG63 and Saos-2 cells were cultured under hypoxic or normoxic conditions. The RNA levels of miR-378a-3p and BYSL were measured by RT-qPCR. (B) The 3'-untranslated region (UTR) of BYSL harbor potential miR-378a-3p binding sites. (C) The luciferase activity displayed by the luciferase reporter constructs which contained wild-type (WT) or mutant (MUT) 3'-UTR of BYSL were co-transfected with miR-378a-3p mimic into MG63 and Saos-2 cells. (D) MG63 and Saos-2 cells were transfected with control-mimic (miR-378a-3p-NC) or miR-378a-3p-mimic, and then cultured under hypoxic or normoxic conditions. The protein levels of BYSL, E-cadherin, N-cadherin, and Vimentin were measured by western blot. The data are presented as the mean \pm SD. * $p < 0.05$. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35154253>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



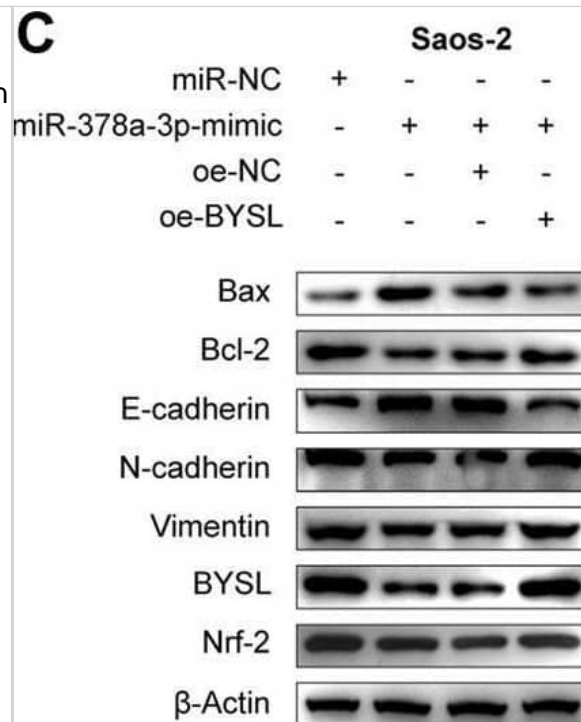
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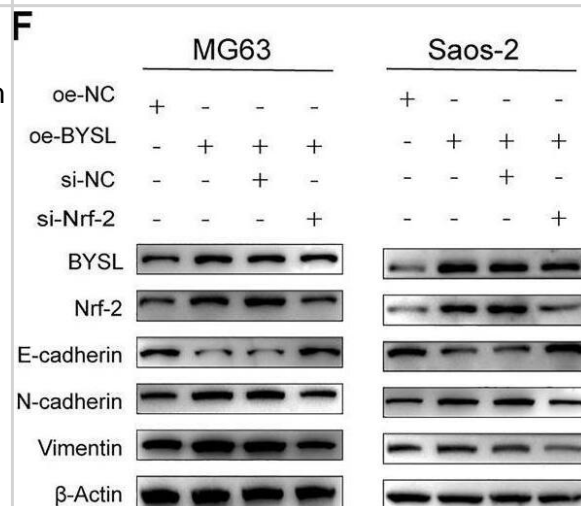
BYSL overexpression rescues the effect of miR-378a-3p overexpression on osteosarcoma cells under hypoxia. (A) MG63 and Saos-2 cells were transfected with control-mimic (miR-NC) or miR-378a-3p-mimic, and then cultured under hypoxic conditions. The RNA level of miR-378a-3p was measured by RT-qPCR. (B,C) MG63 and Saos-2 cells were transfected with control-mimic (miR-NC), miR-378a-3p-mimic, control plasmid (oe-NC), or BYSL overexpression plasmid (oe-BYSL), and then cultured under hypoxic conditions. The protein levels of Bax, Bcl-2, E-cadherin, N-cadherin, vimentin, BYSL and Nrf2 were measured by western blot. (D) MG63 and Saos-2 cells were transfected with control-mimic (miR-NC), miR-378a-3p-mimic, control plasmid (oe-NC), or BYSL overexpression plasmid (oe-BYSL), and then cultured under hypoxic conditions. Cell apoptosis was measured by flow cytometry. (E) MG63 and Saos-2 cells were transfected with control-mimic (miR-NC), miR-378a-3p-mimic, control plasmid (oe-NC), or BYSL overexpression plasmid (oe-BYSL), and then cultured under hypoxic conditions. Cell invasion was measured by matrigel invasion assay. Scale bar = 100 μ m. (F) MG63 and Saos-2 cells were transfected with control-mimic (miR-NC), miR-378a-3p-mimic, control plasmid (oe-NC), or BYSL overexpression plasmid (oe-BYSL), and then cultured under hypoxic conditions. Cell migration was measured by scratch wound healing assay. Scale bar = 500 μ m. The data are presented as the mean \pm SD. * p < 0.05. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35154253>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

Zhang J, Tang H, Jiang X et al. Hypoxia-Induced miR-378a-3p Inhibits Osteosarcoma Invasion and Epithelial-to-Mesenchymal Transition via BYSL Regulation *Frontiers in Genetics* 2022-01-28 [PMID: 35154253] (Western Blot, Block/Neutralize)



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NBP1-89501PEP	BYSL Recombinant Protein Antigen
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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

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