Product Datasheet

SOX2 Antibody (4G8) - BSA Free
NBP2-29623

Unit Size: 0.1 mg

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

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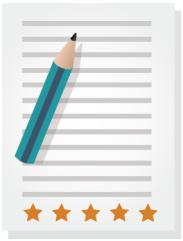


NBP2-29623

SOX2 Antibody (4G8) - BSA Free

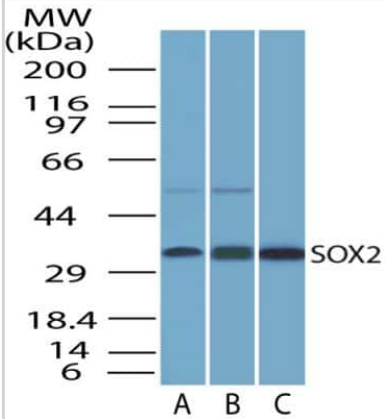
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4G8
Preservative	0.05% Sodium Azide
Isotype	IgG2b
Purity	Protein A or G purified
Buffer	PBS

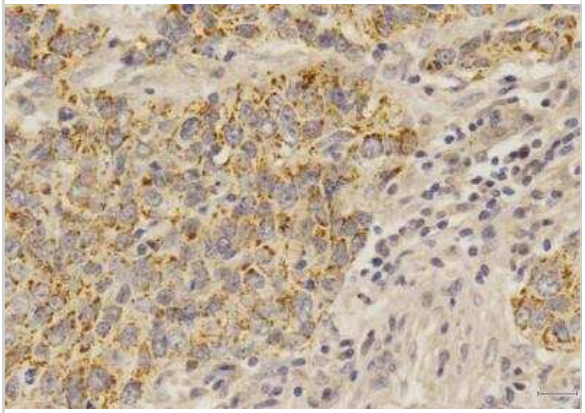
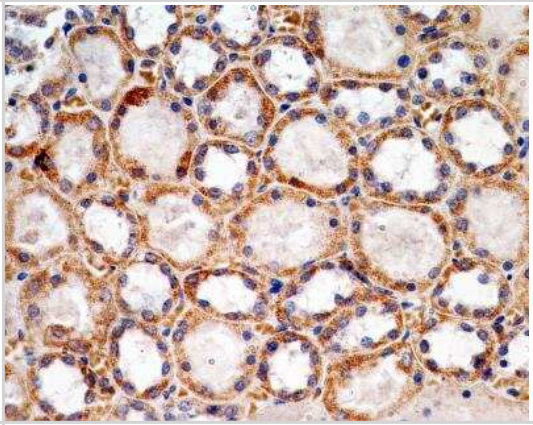
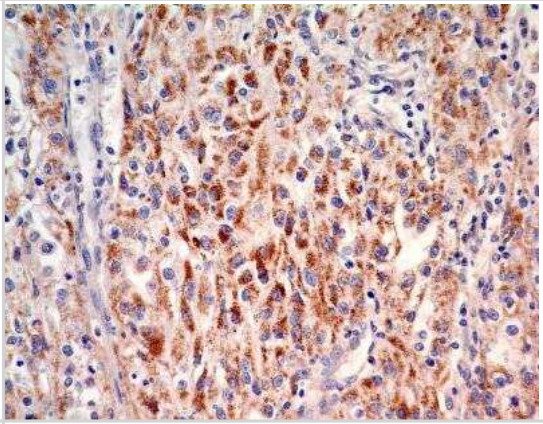
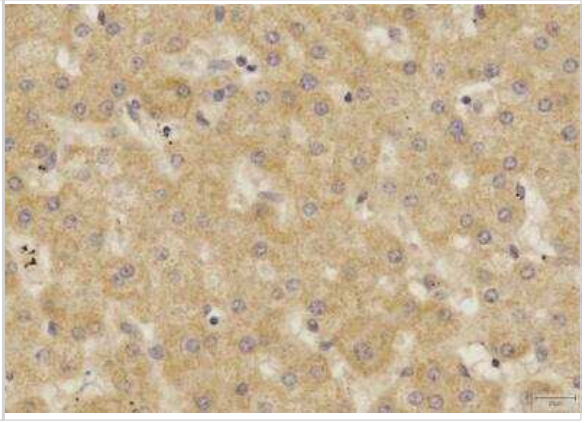
Product Description	
Host	Mouse
Gene ID	6657
Gene Symbol	SOX2
Species	Human
Reactivity Notes	Immunogen displays the following percentage of sequence identity for non-tested species: Mouse (96%), Chicken (93%), Sheep (99%) and Monkey/Primate species (99%), Zebrafish (87%), Xenopus tropicalis (87%), Xenopus laevis (88%).
Marker	Embryonic Stem Cell Marker
Immunogen	Full length recombinant human SOX2 (NCBI NP_003097).

Product Application Details	
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1 ug/ml, Immunohistochemistry 5 ug/ml, Immunohistochemistry-Paraffin 5 ug/ml

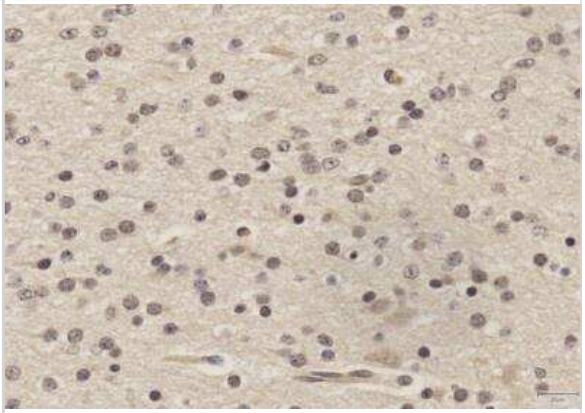
Images

Western Blot: SOX2 Antibody (4G8) [NBP2-29623] - Western blot detection of SOX2 in A. HEK293 cell lysate B. NCCIT cell lysate and C. Full length recombinant protein.

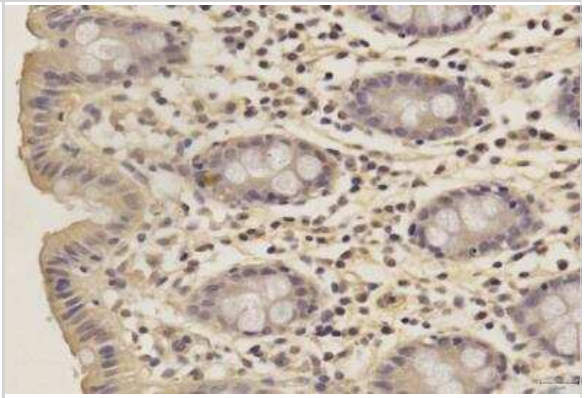


Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human lung cancer using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. The cancer cells developed a punctate immunopositivity of SOX2 protein in the cytoplasm and the staining was mainly localized in the perinuclear region of the cells [Magnification 40X].	
Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC-P analysis of SOX2 protein in a section of human kidney using 5 ug/ml concentration of SOX2 antibody (clone 4G8). The representative image shows distinct nuclear and cytoplasmic staining pattern in cells of different types of renal tubules and blood vessels in the kidney section [Magnification 40X].	
Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC-P analysis of SOX2 protein in a section of human renal cell carcinoma using 5 ug/ml concentration of SOX2 antibody (clone 4G8). Granular nuclear and cytoplasmic staining pattern was observed in the carcinoma cells, whereas, a weak to negligible staining was observed in the stroma areas [Magnification 40X]..	
Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded tissue section of normal human liver using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. The liver section depicted a diffused cytoplasmic staining in the hepatocytes [Magnification 40X].	

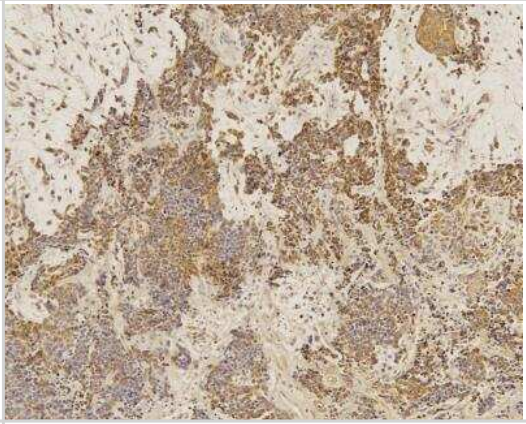
Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded tissue section of normal human brain using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. The representative photomicrograph depicts a cytoplasmic and nuclear immunopositivity of SOX2 protein in brain [Magnification 40X].



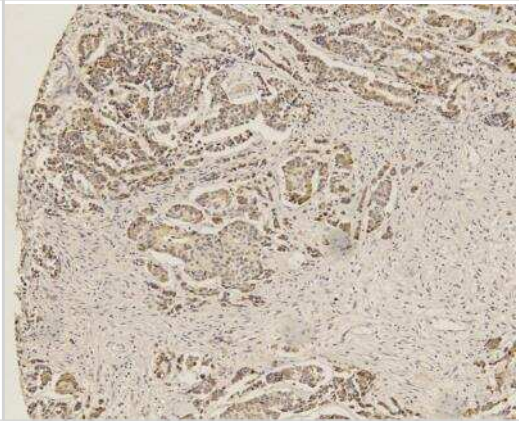
Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded section of normal human colon tissue using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. A weak and diffused cytoplasmic staining was observed in majority of the cells in mucosal layer of colon [Magnification 40X].



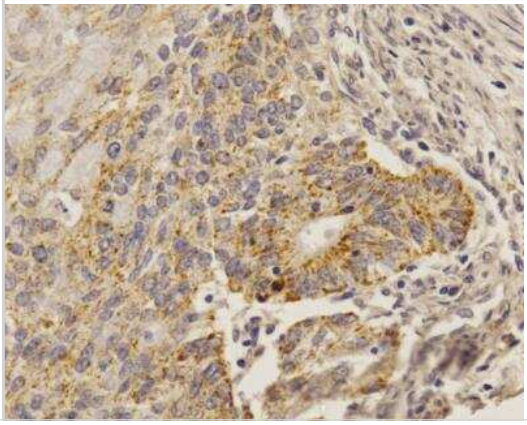
Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human bladder cancer using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. The cancer cells developed a cytoplasmic and nuclear immunepositivity for SOX2 protein [Magnification 10X].



Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human breast cancer using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. The cancer cells developed a cytoplasmic and nuclear immunepositivity, whereas the stroma was largely negative for SOX2 protein [Magnification 10X].



Immunohistochemistry-Paraffin: SOX2 Antibody (4G8) [NBP2-29623] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human uterine cancer using mouse monoclonal SOX2 antibody (clone 4G8) at 5 ug/ml concentration. The cancer cells developed a punctate staining in the cytoplasm and nuclei, whereas the stroma was very weakly positive for SOX2 protein [Magnification 40X].



Publications

Aboushousha T, Mamdouh S, Hamdy H, Helal N. Immunohistochemical and Biochemical Expression Patterns of TTF-1, RAGE, GLUT-1 and SOX2 in HCV-Associated Hepatocellular Carcinomas. Asian Pac. J. Cancer Prev. 2018-01-27 [PMID: 29373917] (IHC-P, Human)

Procedures

Western Blot protocol for SOX2 Antibody (NBP2-29623)
SOX2 Antibody (4G8):
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute anti-CRLF2 primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.
Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunohistochemistry-Paraffin protocol for SOX2 Antibody (NBP2-29623)

SOX2 Antibody (4G8):

1. Deparaffinize the tissue sections by immersing the slides in Xylene with two changes for 10 min each. Sections should not get dried at any stage from this point.
2. Rehydrate the tissue sections by immersing the slides in decreasing grades of ethanol as follows:
 a. Immerse in 100% ethanol with 2 changes for 5 minutes each
 b. Immerse in 95% ethanol with 2 changes for 5 minutes each
 c. Immerse in 90% ethanol for 5 minutes
 d. Immerse in 70% ethanol for 5 minutes
 e. Immerse in 50% ethanol for 5 minutes
 f. Immerse in distilled water for 5 minutes
3. Antigen Retrieval (Microwave Method):
 a. Immerse the slides in a microwave compatible tray containing 10 mM Sodium Citrate buffer (pH 6.0) with 0.05% Tween 20.
 b. Boil the slides and maintain the sub-boiling temperature for 5 minutes in the microwave. Thereafter, take out the tray very carefully and cool it at room temperature (RT) for about 30 minutes.
 c. Wash the slides 3 times, 3 minutes each by immersing them in TBST (Tris Buffered Saline having 0.05% Tween 20).
4. Quenching of Endogenous Peroxidase:
 a. Incubate the slides in 3% hydrogen peroxide prepared in methanol for 15 minutes (at RT, in dark conditions).
 b. Wash the slides in TBST 3 times, 3 minutes each.
5. Protein Blocking:
 a. Incubate the sections with background sniper solution at RT for 15 minutes (Biocare Medicals, USA).
 b. Wash the sections 3 times, 3 min each by immersing the slides in TBST.
6. Primary Antibody:
 a. Dilute the primary antibody at 5ug/ml concentration using PBS as a diluent.
 b. Incubate the sections with diluted primary antibody for 90 minutes at RT in a humidified chamber.
 c. Thereafter, wash the slides 4 times, 5 minutes each with TBST.
7. Probe (Secondary Reagent):
 a. Incubate with MACH 1 Mouse probe for 15 minutes at RT.
 b. Incubate for 30 min at room temperature with HRP-Polymer (Biocare Medical, USA).
 c. Wash the slides with TBST 4 times, 5 minutes each
8. Chromogen:
 a. Mix 32ul of DAB Chromogen with 1 ml of DAB substrate buffer (Biocare Medical, USA).
 b. Apply 200ul DAB mixture/section and incubate at RT in dark conditions (few seconds - 5 minutes).
 c. As soon as an appropriate color develops, rinse the slides with deionized water (2-3 brief rinses).
9. Counter stain:
 a. Counter stain with Hematoxylin for 30 seconds (Vector Labs, USA).
 b. Wash in deionized water for 1-2 minutes to clear the extra stain.
 c. Incubate the slides in bluing solution or Scott's water twice for 2 minutes each time.
10. Dehydrate the sections in increasing grades of alcohols:
 a. 50% alcohol for 1 minute
 b. 70% for 1 minute
 c. 90% for 1 minute
 d. 95% for 1 minute
 e. 100% for 1 minute
 f. Xylene with 2 changes for 2 minutes each
11. Mount with DPX mount and cover-slip glass (Fisher Scientific, USA), carefully not allowing any air bubbles to enter.

NOTE:- This protocol is provided as a reference tool only. Depending upon the type of tissues /tissue processing and reagents employed, the end user will need to optimize the final conditions for achieving an expected staining.

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Products Related to NBP2-29623

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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP2-27231	Mouse IgG2b Isotype Control (MPC-11)
NBP2-35268-5ug	Recombinant Human SOX2 TAT Protein

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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