

## Product Datasheet

### SOX2 Antibody (orb2640203)

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>         | SOX2 is a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation of embryonic development and in the determination of cell fate. At present, 30 Sox genes have been identified. SOX2 is required for stem cell maintenance in the central nervous system, and it also regulates gene expression in the stomach. SOX2 is necessary for regulating multiple transcription factors that affect Oct 3/4 expression. An essential function of SOX2 is to stabilize embryonic stem cells in a pluripotent state by maintaining the requisite level of Oct 3/4 expression. |
| <b>Species/Host</b>        | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Reactivity</b>          | Human, Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Conjugation</b>         | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Tested Applications</b> | ELISA, IHC-P, WB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Immunogen</b>           | Amino acids 176-305 of the human protein were used as the immunogen for the SOX-2 antibody.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Preservatives</b>       | 0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin (US sourced) and 0.05% sodium azide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>             | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Note</b>                | For research use only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Application notes</b>   | Optimal dilution of the SOX-2 antibody should be determined by the researcher.1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.                                                                                                                                                                                                                                                                                                                    |
| <b>Formula</b>             | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Isotype</b>             | Mouse IgG2b, kappa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

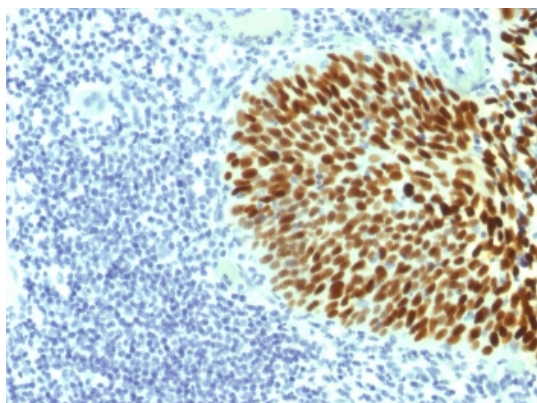
#### Biorbyt Ltd.

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44201223859353) | Fax: [+1 \(415\) 651-8558](tel:+14156518558)

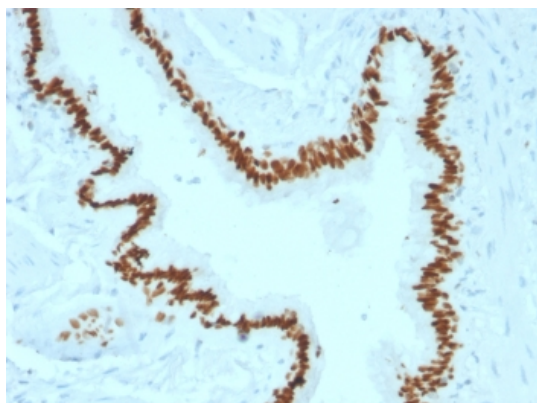
#### Biorbyt LLC.

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+14159065211) | Fax: [+1 \(415\) 651-8558](tel:+14156518558)

|                           |                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Clonality</b>          | Monoclonal                                                                                                                    |
| <b>Clone Number</b>       | SOX2/1791                                                                                                                     |
| <b>Antibody Type</b>      | Primary Antibody                                                                                                              |
| <b>Purity</b>             | Protein G affinity chromatography                                                                                             |
| <b>Uniprot ID</b>         | <b>P48431</b>                                                                                                                 |
| <b>Hazard Information</b> | This SOX-2 antibody is available for research use only.                                                                       |
| <b>Dilution Range</b>     | ELISA: 2-4ug/ml (order BSA/azide-free format), Western blot: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT |
| <b>Expiration Date</b>    | 12 months from date of receipt.                                                                                               |



IHC testing of FFPE human cervical carcinoma with SOX-2 antibody (clone SOX2/1791). Required HIER: boil tissue sections in 10mM citrate buffer, pH6, for 10-20 min followed by cooling at RT for 20 min.



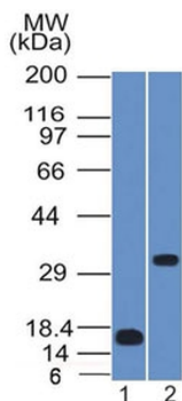
IHC testing of FFPE human lung carcinoma with SOX-2 antibody (clone SOX2/1791). Required HIER: boil tissue sections in 10mM citrate buffer, pH6, for 10-20 min followed by cooling at RT for 20 min.

**Biorbyt Ltd.**

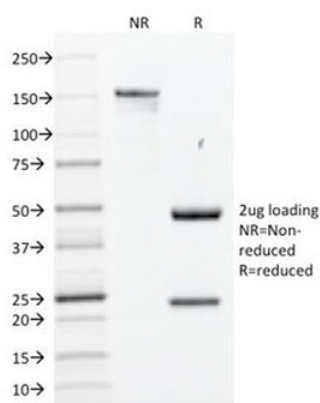
7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

**Biorbyt LLC.**

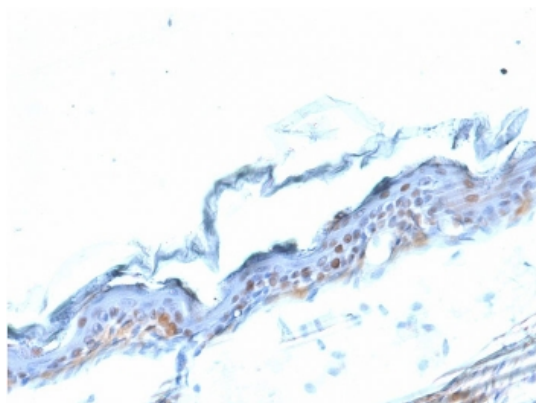
68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)



Western blot testing of 1) partial human protein and 2) human NCCIT lysate with SOX-2 antibody (clone SOX2/1791). Predicted molecular weight ~34 kDa.



SDS-PAGE Analysis of Purified, BSA-Free SOX-2 Antibody (clone SOX2/1791). Confirmation of Integrity and Purity of the Antibody.



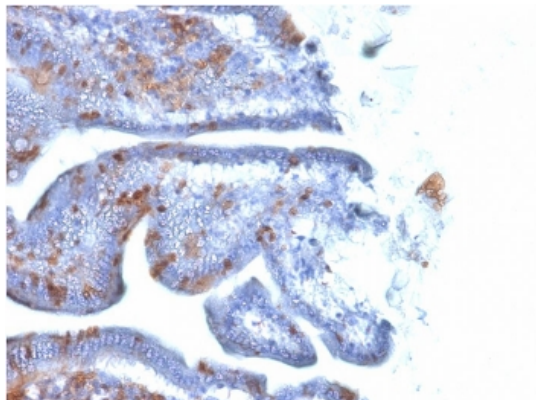
IHC testing of FFPE mouse stomach with SOX2 antibody (clone SOX2/1791). Required HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.

#### **Biorbyt Ltd.**

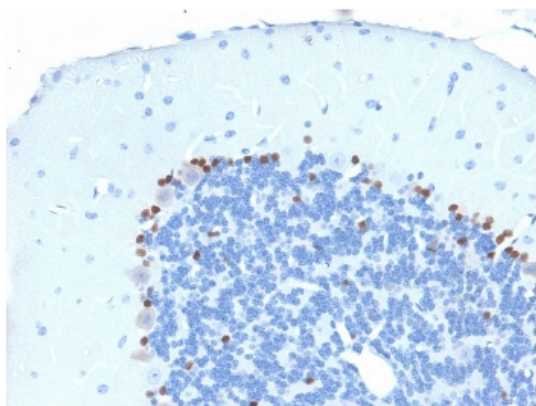
7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44201223859353) | Fax: [+1 \(415\) 651-8558](tel:+14156518558)

#### **Biorbyt LLC.**

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+14159065211) | Fax: [+1 \(415\) 651-8558](tel:+14156518558)

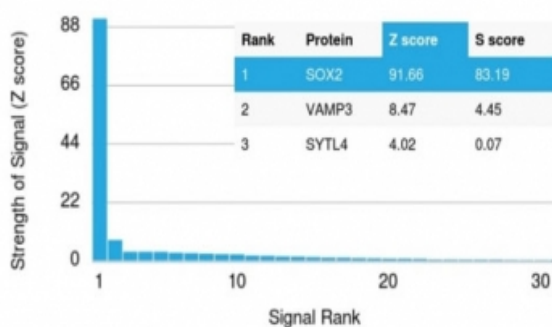


IHC testing of FFPE mouse intestine with SOX2 antibody (clone SOX2/1791). Required HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



IHC testing of FFPE mouse brain with SOX2 antibody (clone SOX2/1791). Required HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.

#### Human Protein Microarray Specificity Validation



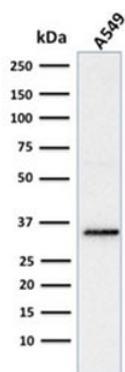
Analysis of HuProt (TM) microarray containing more than 19,000 full-length human proteins using SOX2 antibody (clone SOX2/1791). These results demonstrate the foremost specificity of the SOX2/1791 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

#### **Biorbyt Ltd.**

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

#### **Biorbyt LLC.**

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)



Western blot testing of human A549 cell lysate with SOX-2 antibody (clone SOX2/1791). Predicted molecular weight ~34 kDa.

**Biorbyt Ltd.**

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

**Biorbyt LLC.**

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)