

Product datasheet for **TA302025**

SOX2 Mouse Monoclonal Antibody

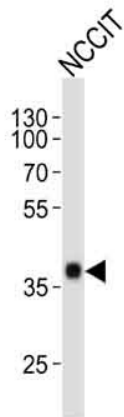
Product data:

| | |
|-------------------------|--|
| Product Type: | Primary Antibodies |
| Applications: | FC, IF, IHC, WB |
| Recommend Dilution: | IF: 1:100, WB: 1:200~2000, IHC: 1:50~100, FC: 1:10~50 |
| Reactivity: | Human |
| Host: | Mouse |
| Isotype: | IgG1, kappa |
| Clonality: | Monoclonal |
| Immunogen: | SOX2 recombinant protein is used to produce this monoclonal antibody. |
| Formulation: | Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. |
| Purification: | This antibody is purified through a protein G column, followed by dialysis against PBS. |
| Predicted Protein Size: | 34310 Da |
| Gene Name: | SRY-box 2 |
| Database Link: | NP_003097 Entrez Gene 6657 Human |
| Background: | 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. This protein may act as a transcriptional activator after forming a protein complex with other proteins. Mutations in the SOX2 gene have been associated with bilateral anophthalmia, a severe form of structural eye malformation. |
| Synonyms: | ANOP3; MCOPS3 |
| Protein Families: | Adult stem cells, Cancer stem cells, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Transcription Factors |

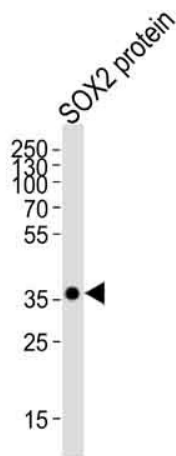


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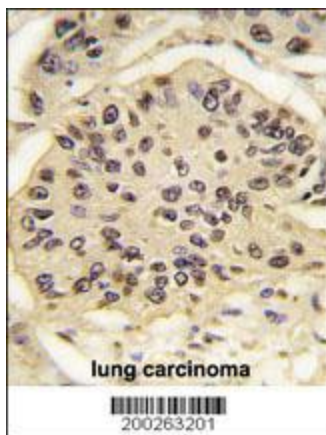
Product images:



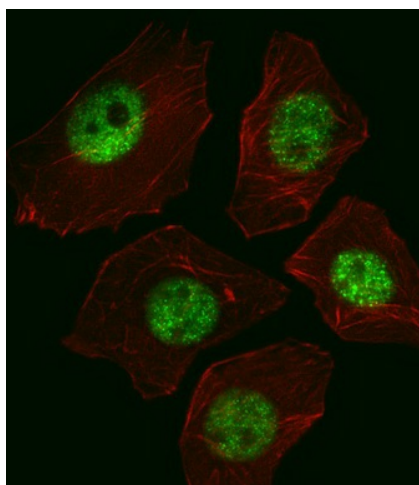
Western blot analysis of SOX2 Antibody (Cat.#TA302025) by SOX2 recombinant protein. SOX2 (arrow) was detected using the purified Mab.



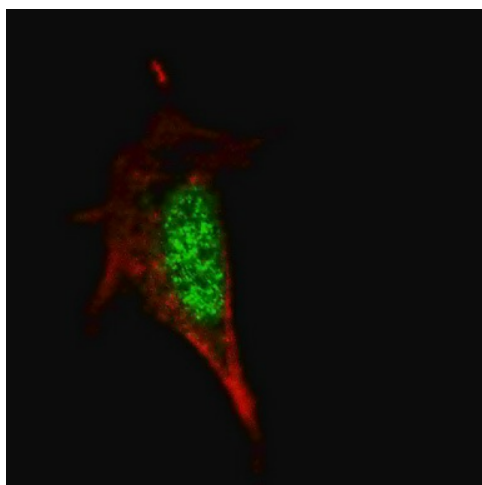
Western blot analysis of SOX2 (arrow) using mouse monoclonal SOX2 antibody (Cat.#TA302025). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the SOX2 gene (Lane 2) (Origene Technologies)



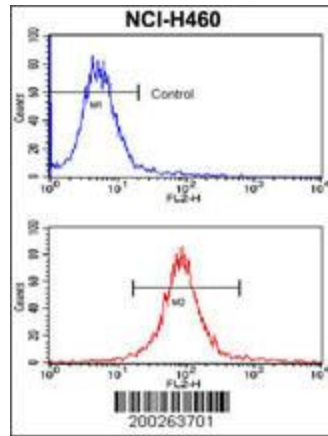
Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with SOX2 Antibody (Cat.#TA302025), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



IF image of A549 cell stained with SOX2 Antibody (Cat#TA302025/SG110310AA). A549 cells were incubated with SOX2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse antibody (green) was used (1:400). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml). SOX2 immunoreactivity is localized to Nucleus significantly.



Fluorescent confocal image of SY5Y cells stained with SOX2 antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with TA302025 SOX2 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse antibody (green) was used (1:1000, 1h). Note the highly specific localization of the SOX2 mainly to the nucleus.



Flow cytometric analysis of NCI-H460 cells using SOX2 Monoclonal Antibody (bottom histogram) compared to a negative control cell (top histogram). PE-conjugated goat-anti-mouse secondary antibodies were used for the analysis.