

## 36-3172: Anti-SOX4 (Master Regulator of Epithelial-Mesenchymal Transition) Monoclonal Antibody(Clone: SOX4/2540)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	SOX4/2540
<b>Application :</b>	IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	SOX4
<b>Gene ID :</b>	6659
<b>Uniprot ID :</b>	Q06945
<b>Alternative Name :</b>	SOX; SRY (sex determining region Y) box 4; SRY box containing gene 4; SRY related HMG box gene 4; Transcription factor SOX-4
<b>Isotype :</b>	Mouse IgG2b, kappa
<b>Immunogen Information :</b>	Recombinant full-length human SOX4 protein

### Description

SOX4 is a member of the SOX (SRY-related HMG-box) family of transcription factors with a critical role in embryonic development and in cell-fate determination during organogenesis of the heart, pancreas, brain, and in B and T lymphocyte differentiation. SOX4 gene expression is upregulated in many cancer types, and increased SOX4 activity contributes to cellular transformation, cell survival, and metastasis. Gene expression profiling has uncovered SOX4 with upregulated activity during TGF $\alpha$ -induced epithelial-mesenchymal transition (EMT) in normal and cancerous breast epithelial cells. SOX4 is indispensable for EMT and cell survival invitro and for primary tumor growth and metastasis invivo. SOX4 is identified as a master regulator of EMT by governing the expression of the epigenetic modifier Ezh2.

### Product Info

<b>Amount :</b>	20 $\mu$ g / 100 $\mu$ g
<b>Content :</b>	200 $\mu$ g/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage condition :</b>	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

### Application Note

Immunohistochemistry (Formalin-fixed) (1-2 $\mu$ g/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95 $\pm$ degC followed by cooling at RT for 20 minutes);

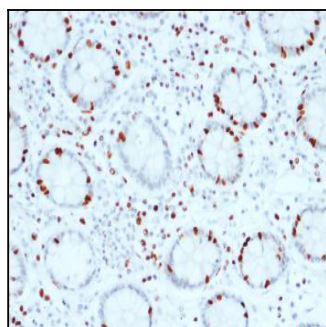


Fig. 1: Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with SOX4 Mouse Monoclonal Antibody (SOX4/2540).

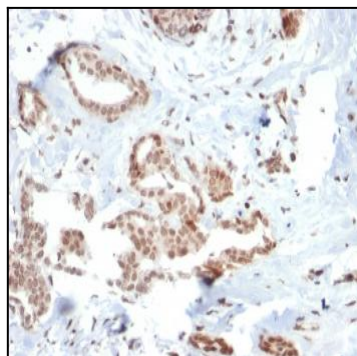


Fig. 2: Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with SOX4 Mouse Monoclonal Antibody (SOX4/2540).

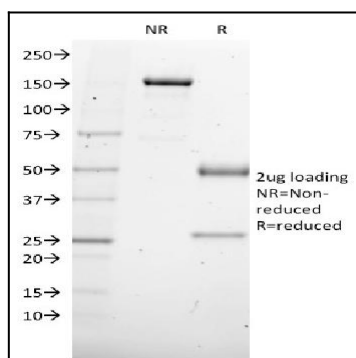


Fig. 3: SDS-PAGE Analysis Purified SOX4 Mouse Monoclonal Antibody (SOX4/2540). Confirmation of Purity and Integrity of Antibody.

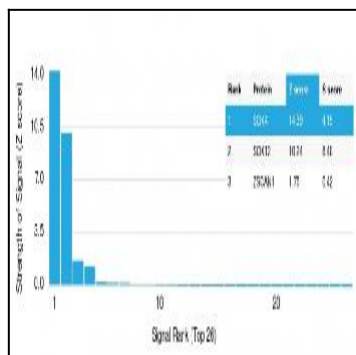


Fig. 4: Analysis of Protein Array containing more than 19,000 full-length human proteins using SOX4 Mouse Monoclonal Antibody (SOX4/2540). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.