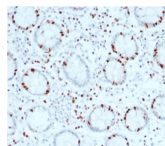


SOX4 Monoclonal Mouse Antibody (SOX4/2540)



Product 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- β -induced epithelial-mesenchymal transition (EMT) in normal and cancerous breast epithelial cells. SOX4 is indispensable for EMT and cell survival in vitro and for primary tumor growth and metastasis in vivo. SOX4 is identified as a master regulator of EMT by governing the expression of the epigenetic modifier Ezh2. Primary antibodies are available purified, or with a selection of fluorescent CF $\text{\textcircled{R}}$ dyes and other labels. CF $\text{\textcircled{R}}$ dyes offer exceptional brightness and photostability. See the [CF \$\text{\textcircled{R}}\$ Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF $\text{\textcircled{R}}$ 405S and CF $\text{\textcircled{R}}$ 405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF $\text{\textcircled{R}}$ dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order. **Catalog number key for antibody number 2540, Anti-SOX4 (SOX4/2540)**

Product attributes	
Antibody number	#2540
Antibody reactivity (target)	SOX4
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	SOX4/2540
Isotype	IgG2b, kappa
Molecular weight	47 kDa
Synonyms	SOX; SRY (sex determining region Y) box 4; SRY box containing gene 4; SRY related HMG box gene 4; Transcription factor SOX-4
Human gene symbol	SOX4
Entrez gene ID	6659
SwissProt	Q06945
Unigene	643910
Immunogen	Recombinant full-length human SOX4 protein
Antibody target cellular localization	Nucleus
Verified antibody applications	IHC (FFPE) (verified)
Species reactivity	Human
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunohistochemistry (formalin): 1-2 ug/mL for 30 minutes at RT. Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined by user
Positive control	Breast or Colon Carcinoma
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 $^{\circ}$ C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 $^{\circ}$ C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA. Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Validated in protein assay	Monospecific
Antibody research areas	Cancer, Developmental biology, Transcription factors

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel
BNC04	CF $\text{\textcircled{R}}$ 405S	404/431	405	DAPI (microscopy), AF405
BNC88	CF $\text{\textcircled{R}}$ 488A	490/515	488	GFP, FITC
BNC68	CF $\text{\textcircled{R}}$ 568	562/583	532, 561	RFP, TRITC
BNC94	CF $\text{\textcircled{R}}$ 594	593/614	561	Texas Red $\text{\textcircled{R}}$
BNC40	CF $\text{\textcircled{R}}$ 640R	642/662	633-640	Cy $\text{\textcircled{R}}$ 5
BNC47	CF $\text{\textcircled{R}}$ 647	650/665	633-640	Cy $\text{\textcircled{R}}$ 5
BNCB	Biotin	N/A	N/A	N/A
BNUB	Purified	N/A	N/A	N/A
BNUM	Purified, BSA-free	N/A	N/A	N/A

Dye Features
[CF \$\text{\textcircled{R}}\$ 405S Features](#)
[CF \$\text{\textcircled{R}}\$ 488A Features](#)
[CF \$\text{\textcircled{R}}\$ 568 Features](#)
[CF \$\text{\textcircled{R}}\$ 594 Features](#)
[CF \$\text{\textcircled{R}}\$ 640R Features](#)
[CF \$\text{\textcircled{R}}\$ 647 Features](#)

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