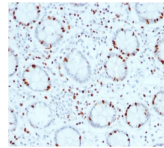


# SOX4 Monoclonal Mouse Antibody (SOX4/2540)



## 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® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®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® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto: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       | 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. Immunohistology (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 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °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 array     | Monospecific   |
| Antibody research areas        | Cancer, Developmental biology, Transcription factors   |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF®405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| 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                      |                                  |

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