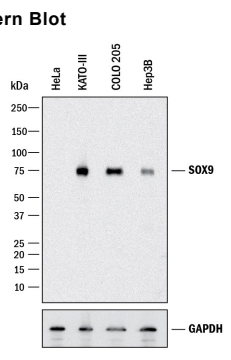
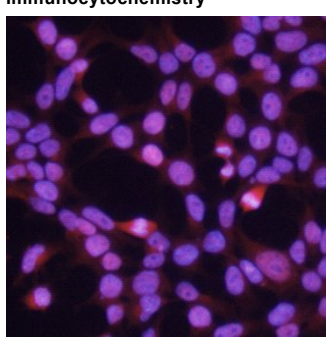
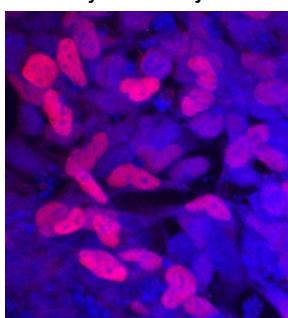


DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human SOX9 in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant human (rh) SOX10 is observed, and less than 15% rhSOX11, rhSOX12, and rhSOX15 is observed, and less than 5% cross-reactivity with rhSOX1, rhSOX2, rhSOX3, rhSOX5, rhSOX6, rhSOX7, rhSOX8, rhSOX13, rhSOX17, rhSOX18, rhSOX21, and rhSOX30 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human SOX9 Met1-Lys151 Accession # P48436
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below

DATA	
<p><b>Western Blot</b></p>  <p><b>Detection of Human SOX9 by Western Blot.</b> Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, KATO-III human gastric carcinoma cell line, COLO 205 human colorectal adenocarcinoma cell line, and Hep3B human hepatocellular carcinoma cell line. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human SOX9 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3075) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for SOX9 at approximately 75 kDa (as indicated). GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>SOX9 in HEK293 Human Cell Line.</b> SOX9 was detected in immersion fixed HEK293 human embryonic kidney cell line using 10 µg/mL Human SOX9 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3075) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>

<p><b>Immunocytochemistry</b></p> 	<p><b>SOX9 in BG01V Human Embryonic Stem Cells.</b> SOX9 was detected in immersion fixed BG01V human embryonic stem cells differentiated into early proximal lung progenitor cells using Goat Anti-Human SOX9 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3075) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for <a href="#">Fluorescent ICC Staining of Stem Cells on Coverslips</a>.</p>
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PREPARATION AND STORAGE	
<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

SOX9 belongs to the SOX (SRY-like HMG box) family of transcription factors with diverse roles in development. SOX9 is expressed in mesenchymal progenitors that give rise to chondrocytes and osteoblasts. It is also expressed in the central nervous system, neural crest, intestine, pancreas, and testis. Mutations in SOX9 are associated with defects in sex determination, cartilage and bone development, as well as abnormalities of the heart, kidneys, brain, gut, and pancreas.