

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human FoxD3 (aa 1-140) in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) FoxP3, rhFoxP1, and rhFoxO3A is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human FoxD3 Met1-Val140 Accession # Q9UJU5
<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 as a 0.2 µm filtered solution in PBS.

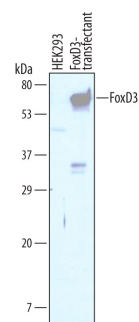
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below

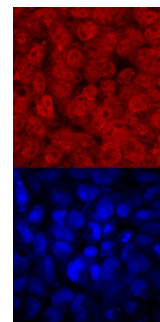
## DATA

### Western Blot



**Detection of Human FoxD3 by Western Blot.** Western blot shows lysates of HEK293 human embryonic kidney cell line either mock transfected or transfected with human FoxD3. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human FoxD3 aa 1-140 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2819) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for FoxD3 at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunocytochemistry



**FoxD3 in BG01V Human Stem Cells.** FoxD3 was detected in immersion fixed BG01V human embryonic stem cells using Sheep Anti-Human FoxD3 aa 1-140 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2819) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## 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

FOXD3 (forkhead box protein D3; also HNF3, HFH2 and *Genesis*) is a 58-60 kDa member of the winged helix transcription factor gene family. It is expressed in the epiblast, migrating neural crest, and neural progenitors of the developing spinal cord. FOXD3 is believed to maintain an uncommitted state in multipotent neural crest stem cells, and to induce cell cycle arrest via p53 and p21<sup>CIP1</sup>. Human FOXD3 is 478 amino acids (aa) in length. It contains a forkhead DNA binding domain (aa 141-235) plus an Ala-rich region (aa 262-473). Over aa 1-140 and 302-462, human FOXD3 shares 76% and 91% aa identity with mouse FoxD3, respectively.