

**DESCRIPTION**

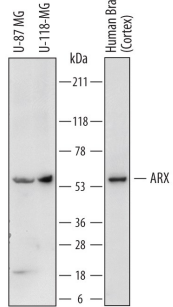
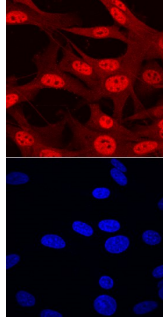
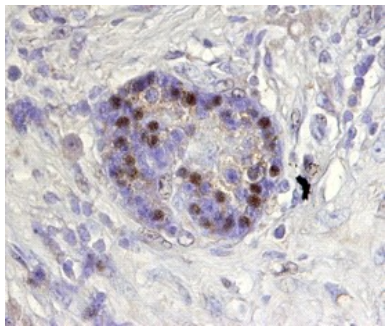
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human ARX in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human ARX Ser2-Ala100 Accession # Q96QS3
<b>Formulation</b>	Lyophilized 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	2 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

**DATA**

<p><b>Western Blot</b></p>  <p><b>Detection of Human ARX by Western Blot.</b> Western blot shows lysates of U-87 MG human glioblastoma/astrocytoma cell line, U-118-MG human glioblastoma/astrocytoma cell line, and human brain (cortex) tissue. PVDF membrane was probed with 2 µg/mL of Sheep Anti-Human ARX Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7068) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for ARX at approximately 58 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>ARX in U-87 MG Human Cell Line.</b> ARX was detected in immersion fixed U-87 MG human glioblastoma/astrocytoma cell line using Sheep Anti-Human ARX Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7068) 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. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
<p><b>Immunohistochemistry</b></p>  <p><b>ARX in Human Pancreas.</b> ARX was detected in immersion fixed paraffin-embedded sections of human pancreas using Sheep Anti-Human ARX Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7068) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei of pancreatic islets. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>	

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<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

ARX (Aristaless-Related homeoboX protein) is a 56-62 kDa member of the aristaless subfamily, paired homeobox family of proteins. In the nervous system, it is expressed in embryonic telencephalon plus adult cortical GABAergic neurons and differentiating neuronal stem cells; in the pancreas, it promotes the differentiation of  $\alpha$ -cells at the expense of  $\beta$ -cells. Human ARX is a 562 amino acid (aa) transcriptional repressor. It contains an octapeptide motif that binds Groucho proteins (aa 27-34), an NLS (aa 82-89), one Ala-rich region (aa 100-155), an acidic/Glu-rich region (aa 224-253), a DNA-binding homeodomain with an embedded NLS (aa 328-387), one Pro-rich segment that binds CtBP1 (aa 395-459) and a C-terminal Aristaless domain (aa 530-543). There are mutations that show poly-Ala expansions in the N-terminus (aa 115-155), often associated with developmental abnormalities. Over aa 1-100, human ARX shares 97% aa identity with mouse ARX.