

## DESCRIPTION

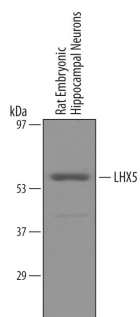
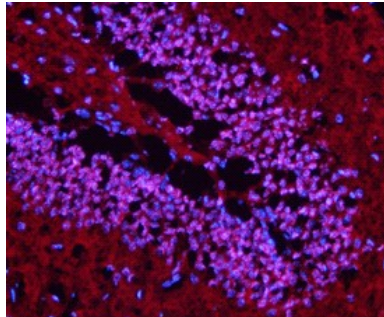
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects recombinant human LHX5 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant human (rh) LIM1 is observed, and less than 5% cross-reactivity with rhLHX2, and rhLHX9 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human LHX5 Leu265-Trp402 Accession # Q9H2C1
<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>Immunohistochemistry</b>	5-15 µg/mL	See Below

## DATA

Western Blot	Immunohistochemistry
 <p><b>Detection of Rat LHX5 by Western Blot.</b> Western blot shows lysates of rat embryonic hippocampal neurons. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human LHX5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6290) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for LHX5 at approximately 55-60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	 <p><b>LHX5 in Mouse Brain.</b> LHX5 was detected in perfusion fixed frozen sections of adult mouse brain (hippocampus) using Goat Anti-Human LHX5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6290) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for <a href="#">Fluorescent IHC Staining of Frozen 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

LHX5 (LIM/homeobox protein 5) is a member of the LIM homeobox gene family. It is expressed in embryonic CNS, and appears to contribute to the formation and maintenance of multiple neuronal phenotypes. In the cerebellum, LHX5 promotes Purkinje cell development; in the spinal cord, LHX5 maintains a GABAergic phenotype in select dorsal horn interneurons. LHX5 is reported to act as a Wnt pathway antagonist through its stimulation of sFRP-1 and -5 secretion. Human LHX5 is 402 amino acids (aa) in length. It contains two LIM Zn-binding domains (aa 3-61 and 62-125), one phosphorylation site at Tyr119, and a DNA-binding homeodomain (aa 180-239). Over aa 265-402, human LHX5 shares 97% aa identity with mouse LHX5, and 60% aa identity with its paralogue (common ancestral) gene, LHX1.