

#### DESCRIPTION

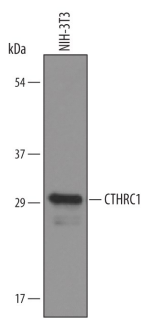
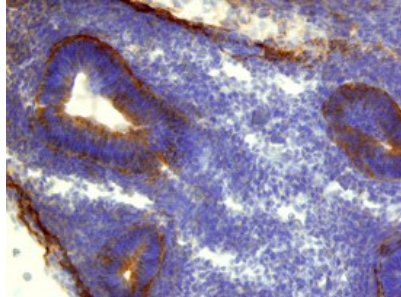
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CTHRC1 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse CTHRC1 Ser33-Lys245 Accession # Q3UAP6
<b>Formulation</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>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

#### DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Mouse CTHRC1 by Western Blot.</b> Western blot shows lysates of NIH-3T3 mouse embryonic fibroblast cell line. PVDF membrane was probed with 1 µg/mL of Mouse CTHRC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5960) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CTHRC1 at approximately 30 kDa (as indicated). This experiment was conducted under reducing conditions and using <i>Immunoblot Buffer Group 8</i>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>CTHRC1 in Mouse Embryo.</b> CTHRC1 was detected in immersion fixed frozen sections of mouse embryo (E13.5) using Mouse CTHRC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5960) 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 cytoplasm. View our protocol for <i>Chromogenic IHC Staining of Frozen Tissue Sections</i>.</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

CTHRC1 (Collagen triple helix repeat-containing protein 1) is a 28-30 kDa, secreted glycoprotein that bears similarity to the C1q/TNF $\alpha$ -related family of proteins. It is expressed by disparate cell types, including renal epithelium, neurons, osteoblasts, and smooth muscle cells. Functionally, it is recognized to be induced by BMP-2 and to block TGF $\beta$ -induced collagen type I and III synthesis. Mouse CTHRC1 is 245 amino acids in length. It contains a 32 amino acid (aa) signal sequence, a 16 aa prosegment (aa 33-48), and a 197 aa mature region that shows one collagen-like domain (aa 59-92). Proteolytic processing may generate multiple CTHRC1 isoforms. There is the potential for an intracellular full-length 33 kDa, 245 aa form, plus extracellular isoforms that are 28 kDa (aa 33-245), 26 kDa (aa 49-245), 20 kDa (aa 98-245) and 18 kDa and 16 kDa in size, the last two representing variants of the 20 kDa form with C-terminal processing. CTHRC1 may undergo dimerization, trimerization and oligomerization. One mouse splice variant shows a deletion of aa 53-126. Full-length mouse CTHRC1 shares 99% and 93% aa sequence identity with rat and human CTHRC1, respectively.