

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CTHRC1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CTHRC1 Ser33-Lys245 Accession # Q3UAP6
Formulation	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.

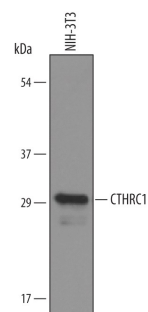
APPLICATIONS

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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

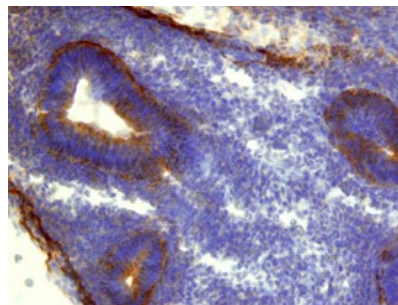
DATA

Western Blot



Detection of Mouse CTHRC1 by Western Blot. 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 [Immunoblot Buffer Group 8](#).

Immunohistochemistry



CTHRC1 in Mouse Embryo. 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 & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CTHRC1 (Collagen triple helix repeat-containing protein 1) is a 28-30 kDa, secreted glycoprotein that bears similarity to the C1q/TNFA-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 TGFβ-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.