

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Chitinase 3-like 1 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant mouse Chitinase 3-like 1 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Chitinase 3-like 1 Tyr22-Thr383 Accession # P36222
<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 either lyophilized or as a 0.2 µm filtered solution in PBS.

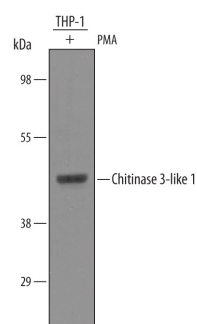
## APPLICATIONS

**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
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

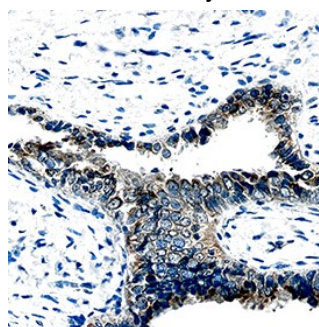
## DATA

### Western Blot



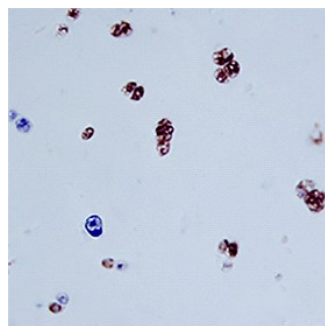
**Detection of Human Chitinase 3-like 1 by Western Blot.** Western blot shows lysates of THP-1 human acute monocytic leukemia cell line treated (+) with 50 ng/mL of PMA for 72 hours. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Chitinase 3-like 1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2599) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for Chitinase 3-like 1 at approximately 45 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

### Immunohistochemistry



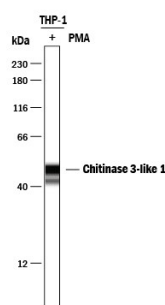
**Chitinase 3-like 1 in Human Ovarian Cancer.** Chitinase 3-like 1 was detected in immersion fixed paraffin-embedded sections of human ovarian cancer using Goat Anti-Human Chitinase 3-like 1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2599) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to epithelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Immunohistochemistry



**Chitinase 3-like 1 in Human Cartilage.** Chitinase 3-like 1 was detected in immersion fixed paraffin-embedded sections of human cartilage using Goat Anti-Human Chitinase 3-like 1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2599) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to chondrocytes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Simple Western



**Detection of Human Chitinase 3-like 1 by Simple Western™.** Simple Western lane view shows lysates of THP-1 human acute monocytic leukemia cell line treated (+) with 50 ng/mL PMA for 72 hours, loaded at 0.2 mg/mL. A specific band was detected for Chitinase 3-like 1 at approximately 49 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Chitinase 3-like 1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2599) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## 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

CHI3L1, also known as HCgp39 (human cartilage glycoprotein 39) and YKL40, is a secreted glycoprotein belonging to the family of chitinase-like lectins. These proteins are structurally related to the glycosylhydrolase family 18, but lack enzymatic activity. CHI3L1 is expressed by chondrocytes, synovial cells, macrophages and neutrophils. It has been found to play a role in down-regulating cytokine-induced inflammatory responses. Human CHI3L1 shares 73%, 80%, 83% and 86% amino acid sequence identity with mouse, rat, bovine and porcine CHI3L1, respectively.