

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Syndecan-1/CD138 in ELISAs and Western blots. In sandwich ELISAs, less than 0.3% cross-reactivity with recombinant human (rh) Syndecan-2, rhSyndecan-3, rhSyndecan-4, and recombinant mouse Syndecan-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 Syndecan-1/CD138 Gln18-Glu251 Accession # NP_002988
<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.

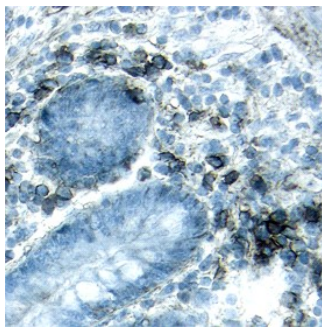
## APPLICATIONS

**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>	0.1 µg/mL	Recombinant Human Syndecan-1/CD138 (Catalog # 2780-SD)
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Human Syndecan-1/CD138 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Human Syndecan-1/CD138 Antibody (Catalog # AF2780)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Human Syndecan-1/CD138 Biotinylated Antibody (Catalog # BAF2780)
<b>Standard</b>		Recombinant Human Syndecan-1/CD138 (Catalog # 2780-SD)

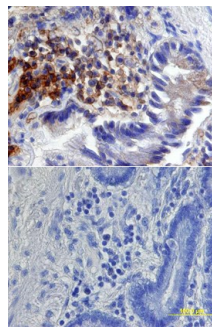
## DATA

### Immunohistochemistry



**Syndecan-1/CD138 in Human Ileum.** Syndecan-1/CD138 was detected in immersion fixed paraffin-embedded sections of human ileum using Human Syndecan-1/CD138 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2780) 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). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Immunohistochemistry



**Syndecan-1/CD138 in Human Jejunum.** Syndecan-1/CD138 was detected in immersion fixed paraffin-embedded sections of human jejunum using Human Syndecan-1/CD138 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2780) 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). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## 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

Human Syndecan-1 (also known as CD138) is a variably glycosylated, dimeric, type I transmembrane (TM) protein that belongs to the Syndecan family. It is synthesized as a 310 amino acid (aa) precursor that contains a 17 aa signal sequence, a 234 aa extracellular domain (ECD), a 25 aa TM segment, and a 34 aa cytoplasmic region. The ECD shows various degrees of heparan sulfate and chondroitin sulfate modification, leading to native molecular weights for Syndecan-1 of 120 - 200 kDa. Proteolytic cleavage of the membrane-bound ECD yields soluble forms of approximately the same molecular weight. Syndecan-1 is an epithelial cell Syndecan involved in Wnt and chemokine signaling. Human Syndecan-1 ECD shares 71% aa identity with the ECD of both rat and mouse Syndecan-1.

## References: