

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Podocalyxin in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant mouse Podocalyxin and recombinant human Endoglycan.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Podocalyxin Ser23-Arg427 Accession # AAB61574
<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.

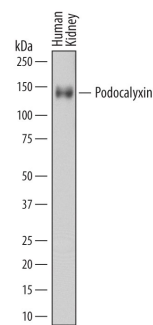
## APPLICATIONS

**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>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	BG01V human embryonic stem cells
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Knockout Validated</b>	Podocalyxin/PODXL is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in Podocalyxin/PODXL knockout HeLa cell line.	

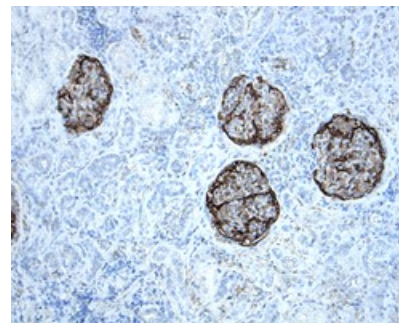
## DATA

### Western Blot



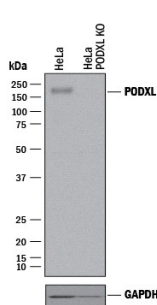
**Detection of Human Podocalyxin by Western Blot.** Western blot shows lysates of human kidney tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Podocalyxin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1658) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for Podocalyxin at approximately 130 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Immunohistochemistry



**Podocalyxin in Human Kidney.** Podocalyxin was detected in immersion fixed paraffin-embedded sections of human kidney using 5 µg/mL Goat Anti-Human Podocalyxin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1658) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to podocytes in glomeruli. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Knockout Validated



#### Western Blot Shows Human Podocalyxin Specificity by Using Knockout Cell Line.

Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and Podocalyxin/PODXL knockout HeLa cell line (KO). PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Podocalyxin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1658) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Podocalyxin at approximately 160 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

## 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

Podocalyxin, also known as Podocalyxin-like protein-1 (PCLP1 or PODXL), is a type I transmembrane glycoprotein. It belongs to the CD34/Podocalyxin family of sialomucins that share structural similarity and sequence homology. Podocalyxin is a major sialoprotein in the podocytes of the kidney glomerulus and is also expressed by both endothelium and multipotent hematopoietic progenitors. It has been identified as a novel cell surface marker for hemangioblasts, the common precursors of hematopoietic and endothelial cells (1, 2).

### References:

1. Li, J. *et al.* (2001) *DNA Seq.* **12**:407.
2. Hara, T. *et al.* (1999) *Immunity* **11**:567.