

Reagents Provided

Allophycocyanin (APC)-conjugated goat polyclonal anti-human

Syndecan-3: Supplied as 25 µg of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

Antibody type: goat IgG

Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

Storage

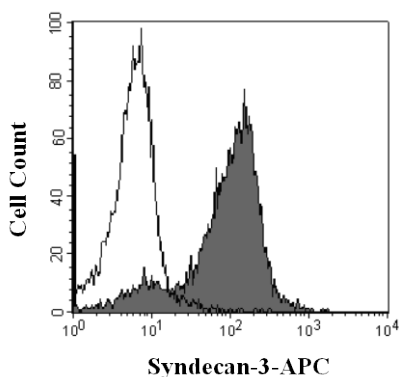
Reagents are stable for **twelve months** from date of receipt when stored in the dark at 2° - 8° C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing Syndecan-3 within a population and qualitatively determine the density of Syndecan-3 on cell surfaces by flow cytometry.

Product Description

This antibody was produced in goats immunized with purified, NS0-derived recombinant human Syndecan-3 isoform 1 (rhSyndecan-3; aa 48 - 383; Accession # CAI22250). Human Syndecan-3 specific IgG was purified by human Syndecan-3 affinity chromatography. The affinity purified antibody was then conjugated to APC fluorochrome. Cell surface expression of Syndecan-3 is determined by flow cytometry using 620 - 650 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 660 - 670 nm.



A172 cells were stained with APC-conjugated anti-human Syndecan-3 (Catalog # FAB3539A, filled histogram) or control (Catalog # IC108A, open histogram).

Background Information

Syndecan-3, also known as N-Syndecan, is a 120 - 150 kDa type I transmembrane protein that belongs to the Syndecan family. It has a 337 amino acid (aa) residue extracellular domain with O-linked sugars and GAG attachments that have heparin sulfate modifications. Splice isoform 2 containing a 28 aa substitution for residues 1 - 86 of isoform 1 and splice isoform 3 containing both the substitution and a truncation of residues 112 - 115 have been reported. Soluble Syndecan-3 can be released by proteolytic cleavage. Syndecan-3 is expressed on visceral smooth muscle, axons, and Schwann cells. Human Syndecan-3 shares 83% amino acid sequence identity in its extracellular region with that of mouse and rat Syndecan-3.

Flow Cytometry Validation

This antibody has been tested for flow cytometry using human A172 cells.

- Cells may be Fc-blocked with 1 µg of human IgG/10⁵ cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
- After blocking, 10 µL of conjugated antibody was added to up to 1 x 10⁶ cells and incubated for 30 minutes at room temperature.
- Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Human Lyse Buffer (Catalog # FC002).
- The cells were resuspended in Flow Cytometry Staining Buffer for final flow cytometric analysis. As a control for analysis, cells in a separate tube should be treated with APC-labeled goat IgG antibody. This procedure may need to be modified, depending upon cell type and final utilization. Individual users may need to titrate to determine optimal reagent amount for their specific use.

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.