SC (SC-05): sc-51694

**BACKGROUND**
Polymeric IgA and IgM is produced and secreted by B cells in the lamina propria, which is beneath the mucosal lining of polarized epithelial cells. Polymeric immunoglobulin receptors, also designated plgRs, are expressed on the basolateral surface of glandular epithelia and mediate transcellular transport of secretory immunoglobulin polymers across the epithelium. plgR associates with secreted dimeric IgA and IgM molecules. During transcellular transport of these lg polymers, plgR undergoes proteolytic cleavage to generate a fragment called secretory component (SC), polymeric immunoglobulin receptor or poly-Ig receptor. When immunoglobulin polymers associate with SC, they become resistant to enzymatic degradation during the transcytosis process. SC and the plgR are crucial for proper mucosal immunity where they represent a molecular chaperone for polymeric lgs to remain intact and enter into body fluids. The human SC (plgR) gene maps to chromosome 1q32.1 and encodes a 764 amino acid protein. The receptor contains five units with homology to the variable (V) units of immunoglobulins and a transmembrane region that shares homology to certain immunoglobulin variable regions.

**REFERENCES**

**SOURCE**
SC (SC-05) is a mouse monoclonal antibody raised against purified SC of human origin.

**PRODUCT**
Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**
SC (SC-05) is recommended for detection of free SC and SC bound in secretory IgA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein in 1 ml of cell lysate), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

**RECOMMENDED SUPPORT REAGENTS**
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker), sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-51624 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGx BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**SELECT PRODUCT CITATIONS**

**STORAGE**
Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**
For research use only, not for use in diagnostic procedures.