SANTA CRUZ BIOTECHNOLOGY, INC.

Ig J chain (M-159): sc-66929

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The regions of relatively constant sequence beyond the variable regions of immunoglobulin are termed constant regions (C regions) and are present in both the heavy and light chains. With few exceptions, the sites of attachment for carbohydrates to immunoglobulin are located in the constant region. The constant regions also serve to hold the variable regions on both heavy and light chain together by virtue of the disulfide bond between them. The immunoglobulin J chain (Ig J chain) is a linker protein for two monomer units of either immunoglobulin α (IgA) or μ (IgM) polypeptides. For IgA the J chained-joined dimer induces larger polymers whereas for the IgM pentamer it functions as a nucleating unit. The Ig J chain is also important in binding these immunoglobulins to secretory components.

REFERENCES

1. Yagi, M., et al. 1982. J chain is encoded by a single gene unlinked to other immunoglobulin structural genes. J. Exp. Med. 155: 647-654.
2. Cann, G.M., et al. 1982. Primary structure of the immunoglobulin J chain from the mouse. Proc. Natl. Acad. Sci. USA 79: 6656-6660.
3. Zikan, J., et al. 1985. Secondary structure of the immunoglobulin J chain. Proc. Natl. Acad. Sci. USA 82: 5905-5909.

CHROMOSOMAL LOCATION

Genetic locus: Igj (mouse) mapping to 5 E1.

SOURCE

Ig J chain (M-159) is a rabbit polyclonal antibody raised against amino acids 1-159 representing full length Ig J chain of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ig J chain (M-159) is recommended for detection of Ig J chain of mouse and rat 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 (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500, immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ig J chain siRNA (m): sc-45774, Ig J chain shRNA Plasmid (m): sc-45774-SH and Ig J chain shRNA (m) Lentiviral Particles: sc-45774-V.

Molecular Weight (predicted) of Ig J chain: 18 kDa.

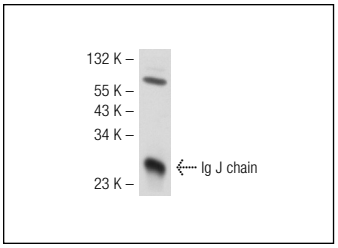
Molecular Weight (observed) of Ig J chain: 18-26 kDa.

Positive Controls: mouse spleen extract: sc-2391 or mouse liver extract: sc-2256.

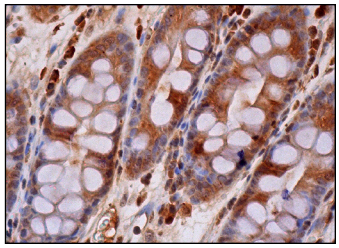
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Ig J chain (M-159): sc-66929. Western blot analysis of Ig J chain expression in mouse spleen tissue extract.



Ig J chain (M-159): sc-66929. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.