



# IgG Chain C (C-17): sc-34663

## 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 constant region domains extend the antigen-binding arms of the antibody molecule, thereby facilitating interaction with the antigen and increasing the maximum rotation of these arms. The constant region has two basic amino acid sequences which comprise the  $\kappa$  and  $\lambda$  light chains. In humans 60% of the light chains are  $\kappa$  and 40% are  $\lambda$ .

## REFERENCES

1. Adetugbo, K., et al. 1978. Evolution of immunoglobulin subclasses. Primary structure of a murine myeloma  $\gamma$ 1 chain. J. Biol. Chem. 253: 6068-6075.
2. Tucker, P.W., et al. 1979. Structure of the constant and 3' untranslated regions of the murine  $\gamma$ 2b heavy chain messenger RNA. Science 206: 1299-1303.
3. Rabbitts, T.H., et al. 1980. The role of gene deletion in the immunoglobulin heavy chain switch. Nature 283: 351-356.
4. Sakano, H., et al. 1980. Two types of somatic recombination are necessary for the generation of complete immunoglobulin heavy-chain genes. Nature 286: 676-683.
5. Goldsby, R., et al. 1992. Kuby Immunology. New York: W.H. Freeman and Company.
6. SWISS-PROT/TrEMBL (P01860). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>.

## CHROMOSOMAL LOCATION

Genetic locus: IGHG3 (human) mapping to 14q32.33.

## SOURCE

IgG Chain C (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IgG-3 Chain C of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34663 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

IgG Chain C (C-17) is recommended for detection of Chain C of all human IgG isotypes of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for IgG Chain C siRNA (h): sc-45778.

Molecular Weight of IgG Chain C: 36 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.