**BACKGROUND**

Antibody producing cells of the immune system require multiple rearrangements of immunoglobulin (antibody, Ig) genes. Immunoglobulins are four-chain, Y-shaped, monomeric structures of two identical heavy chains and two identical light chains held together through interchain disulfide bonds. Immunoglobulins in vertebrates help to remove non-self molecules or cells (antigens) by recognizing and binding to the antigen and carrying out effector functions that activate the immune system. Variable genetic combinations of the five heavy chain classes (M, D, G, E and A) and the two light chain isotypes, κ and λ, confer the role of an antibody. The variable region genes encoding immunoglobulin κ and λ chains are assembled from three DNA segments, the V, C and J genes. Human κ light chain genes map to chromosome 2 and the human λ light chain genes map to chromosome 22. κ gene recombination can precede λ gene recombination during B cell ontogeny and only a single light chain type is expressed in individual B cells. Antibodies in camels and sharks can lack light chain, suggesting that light chain may not be essential for antigen binding in some vertebrates.

**REFERENCES**


Genetic locus: IGKC (human) mapping to 2p11.2.

**SOURCE**

Ig κ light chain (MHK-49) is a mouse monoclonal antibody raised against an IgG, IgM, IgE, and IgA cocktail of human origin.

**PRODUCT**

Each vial contains 100 µg IgG1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Ig κ light chain (MHK-49) is recommended for detection of soluble and membrane Ig κ light chain 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 (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells); non cross-reactive with Ig λ light chain and Ig µ light chain.

**DATA**

Ig κ light chain (MHK-49): sc-73393. Western blot analysis of Ig κ light chain expression in non-transfected 293T: sc-117752 (A), human Ig κ light chain transfected 293T: sc-114846 (B) and U-87-M glial (C) whole cell lysates.

**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 for detailed protocols and support products.