

# CD59 (1B4): sc-53626

## BACKGROUND

CD59 is a GPI-anchored glycoprotein that is expressed on leukocytes, vascular endothelial cells, various epithelial cells and placenta. CD59 acts together with CD58 in mediating T cell adhesion and activation, and it may be a second ligand of CD2. CD59 functions as a regulator of the terminal pathway of complement by binding to the C8/C9 components of the assembling membrane attack complex (MAC) on host cell membranes, to stop the formation of the lytic pore. CD59 also drives both calcium release and activation of lipid-raft associated signalling molecules such as tyrosine kinases. CD59 gene has two p53-responsive domains that may be implicated in the defense of host cells from damage by the complement system in inflammation, suggesting that p53 could be used to mediate susceptibility of tumor cells to the complement lysis during chemotherapy.

## REFERENCES

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- Lin, F., et al. 2004. Respective roles of decay-accelerating factor and CD59 in circumventing glomerular injury in acute nephrotoxic serum nephritis. *J. Immunol.* 172: 2636-2642.
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- Babiker, A.A., et al. 2005. Transfer of functional prostatic CD59 of metastatic prostatic cancer cell origin protects cells against complement attack. *Prostate* 62: 105-114.
- Davies, C.S., et al. 2005. Glycation of CD59 impairs complement regulation on erythrocytes from diabetic subjects. *Immunology* 114: 280-286.
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## CHROMOSOMAL LOCATION

Genetic locus: Cd59a (mouse) mapping to 2 E2.

## SOURCE

CD59 (1B4) is a mouse monoclonal antibody raised against CD59 of rat origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD59 (1B4) is available conjugated to either phycoerythrin (sc-53626 PE) or fluorescein (sc-53626 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

## APPLICATIONS

CD59 (1B4) is recommended for detection of CD59 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)] and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells); not recommended for detection of human CD59.

Suitable for use as control antibody for CD59 siRNA (m): sc-35014, CD59 shRNA Plasmid (m): sc-35014-SH and CD59 shRNA (m) Lentiviral Particles: sc-35014-V.

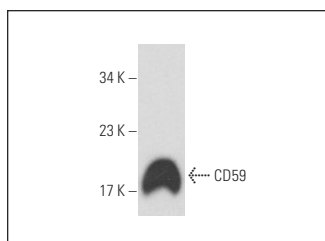
Molecular Weight of CD59: 20 kDa.

Positive Controls: rat brain extract: sc-2392 or rat skeletal muscle extract: sc-364810.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



CD59 (1B4): sc-53626. Western blot analysis of CD59 expression in rat brain tissue extract.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

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