

Crry (TLD-1C11): sc-53530

BACKGROUND

Human membrane cofactor protein (MCP), also designated CD46, is a widely distributed complement regulator. In mouse, expression of MCP is largely restricted to testis, while a related widely expressed protein (Crry) appears to perform the regulatory activity of MCP. Crry (for murine complement receptor-related gene Y), protects the body from damage inflicted by inflammation and modulates renal interstitial disease induced by proteinuria. A functional ortholog of human decay-accelerating factor (DAF, CD55) and membrane cofactor protein (MCP, CD46), Crry protects cells from homologous complement by inhibiting the complement proteins C3 and C4 convertases from marking foreign cells for destruction. Sequence analysis suggests that Crry may be the mouse genetic homolog of the CD35 antigen encoded by the human gene CR1. Manipulation of Crry may play a role in treating central nervous conditions such as traumatic brain injury or stroke. Deletion of the gene encoding Crry may play a role in miscarriages.

REFERENCES

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- Molina, H., et al. 2002. Complement-mediated clearance of erythrocytes: mechanism and delineation of the regulatory roles of Crry and DAF. Decay-accelerating factor. *Blood* 100: 4544-4549.
- Aslam, M., et al. 2003. The extended multidomain solution structures of the complement protein Crry and its chimeric conjugate Crry-Ig by scattering, analytical ultracentrifugation and constrained modelling: implications for function and therapy. *J. Mol. Biol.* 329: 525-550.
- Lee, Y.L., et al. 2004. The embryotrophic activity of oviductal cell-derived complement C3b and iC3b, a novel function of complement protein in reproduction. *J. Biol. Chem.* 279: 12763-12768.
- Muhlfeld, A.S., et al. 2004. Overexpression of complement inhibitor Crry does not prevent cryoglobulin-associated membranoproliferative glomerulonephritis. *Kidney Int.* 65: 1214-1223.
- Gelderman, K.A., et al. 2004. Tumor-specific inhibition of membrane-bound complement regulatory protein Crry with bispecific monoclonal antibodies prevents tumor outgrowth in a rat colorectal cancer lung metastases model. *Cancer Res.* 64: 4366-4372.

CHROMOSOMAL LOCATION

Genetic locus: Crry (mouse) mapping to 1 H6.

SOURCE

Crry (TLD-1C11) is a mouse monoclonal antibody raised against cultured microglial cells 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 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Crry (TLD-1C11) is available conjugated to agarose (sc-53530 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53530 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53530 PE), fluorescein (sc-53530 FITC), Alexa Fluor[®] 488 (sc-53530 AF488), Alexa Fluor[®] 546 (sc-53530 AF546), Alexa Fluor[®] 594 (sc-53530 AF594) or Alexa Fluor[®] 647 (sc-53530 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53530 AF680) or Alexa Fluor[®] 790 (sc-53530 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

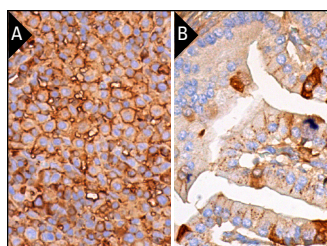
Crry (TLD-1C11) is recommended for detection of Crry of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Crry siRNA (m): sc-42795, Crry shRNA Plasmid (m): sc-42795-SH and Crry shRNA (m) Lentiviral Particles: sc-42795-V.

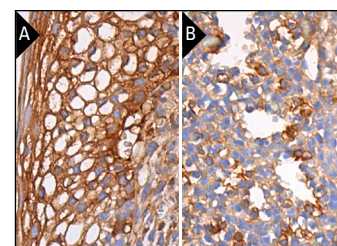
Molecular Weight of Crry isoforms: 53/65/80 kDa.

Positive Controls: rat kidney extract: sc-2394, rat liver extract: sc-2395 or rat spleen extract: sc-2397.

DATA



Crry (TLD-1C11): sc-53530. Immunoperoxidase staining of formalin fixed, paraffin-embedded rat lymph node tissue showing membrane and cytoplasmic staining of cells in non-germinal center (A).



Crry (TLD-1C11): sc-53530. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse fetal epithelial (A) and mouse fetal respiratory system (B) tissue showing membrane and cytoplasmic staining of squamous epithelial cells.

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.