

Crry (M-180): sc-30214

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

1. 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.
2. 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.
3. 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.
4. Muhlfeld, A.S., et al. 2004. Overexpression of complement inhibitor Crry does not prevent cryoglobulin-associated membranoproliferative glomerulonephritis. *Kidney Int.* 65: 1214-1223.
5. 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: CR1 (human) mapping to 1q32; Crry (mouse) mapping to 1 H6.

SOURCE

Crry (M-180) is a rabbit polyclonal antibody raised against amino acids 121-300 mapping within an internal region of Crry 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.

STORAGE

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

APPLICATIONS

Crry (M-180) is recommended for detection of Crry of mouse and rat origin and, to a lesser extent, CD35 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)], immunofluorescence (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 CD35 siRNA (h): sc-29994, Crry siRNA (m): sc-42795, CD35 shRNA Plasmid (h): sc-29994-SH, Crry shRNA Plasmid (m): sc-42795-SH, CD35 shRNA (h) Lentiviral Particles: sc-29994-V and Crry shRNA (m) Lentiviral Particles: sc-42795-V.

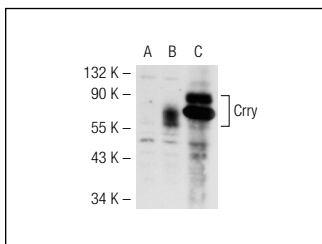
Molecular Weight of Crry isoforms: 53/65/80 kDa.

Positive Controls: mouse spleen extract: sc-2391, rat liver extract: sc-2395 or Crry (m2): 293T Lysate: sc-119473 .

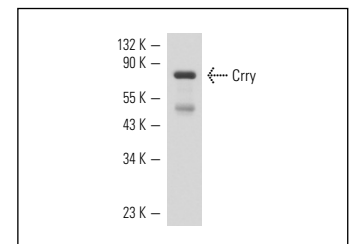
RECOMMENDED SECONDARY REAGENTS

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.

DATA



Crry (M-180): sc-30214. Western blot analysis of Crry expression in non-transfected: sc-117752 (A) and mouse Crry transfected: sc-119473 (B) 293T whole cell lysates and rat spleen tissue extract (C).



Crry (M-180): sc-30214. Western blot analysis Crry expression in rat kidney tissue extract.

RESEARCH USE

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

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Try **Crry (TLD-1C11): sc-53530**, our highly recommended monoclonal alternative to Crry (M-180).