

**MONOCLONAL ANTIBODY TO  
RAT-COMPLEMENT REGULATOR CRRY**  
clone TLD-1C11



**Catalog no** HM3032 (lot number and expiry date are indicated on the label)

**Description** The monoclonal antibody TLD-1C11 reacts with rat-complement regulator Crry. Complement comprises a system of soluble serum proteins that, upon activation by antibody (classical pathway), sugars (lectin pathway), or bacterial and foreign surfaces (alternative pathway), directly causes cell damage. Complement is constantly activated at low levels in serum, requiring cells to be protected themselves from damage. In human, cells are protected from complement-mediated damage by expression of membrane-bound complement regulatory proteins, which act at several points along the cascade. Human cells are protected by decay-accelerating factor (DAF, CD55), membrane cofactor protein (MCP, CD46) and membrane attack complex inhibitor protein 1 (MIN1, CD59). Furthermore the rat analogues of DAF, MCP and CD59 have been characterized. Rats and mice express a unique membrane complement regulator of the activating pathways, called complement receptor type-1 related gene Y (Crry). In rats there are two isoforms of Crry, with six or seven short consensus repeats (SCR), encoding 65-70 and 75-85 kDa proteins, respectively, which are both transmembrane anchored. Although Crry has the functional properties of both DAF and MCP, it does not replace them. All rat blood cells express Crry whereas approximately 37 and 39% of the rat T cells express respectively DAF and CD59. Studies in rat revealed that despite lacking DAF and CD59, these double-negative rat T cells were not more susceptible to homologous complement lysis than cells that expressed both DAF and CD59. However, blocking of the only other known rat complement regulator, Crry, enhanced lysis only at the double-negative cells. In rats, Crry exerts powerful control in the activation pathways where it acts both as a cofactor and as a decay accelerator to inactivate convertases. Crry has been successfully expressed and refolded in bacteria. The refolded protein has full-complement regulatory activity in vitro, and has been applied in rat models of arthritis and other inflammatory diseases. The monoclonal antibody TLD-1C11 can be used to block autoimmune phenomena in rats.

**Aliases** p65, complement receptor type-1 related gene Y

**Immunogen** rat microglial cells

**Species** Mouse IgG1

**Formulation** 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin.

**Application**

	F	FC	FS	IA	IF	IP	P	W
Yes	•	•	•	•	•			•
No								
N.D.						•	•	

N.D.=Not Determined; F=Frozen sections; FC=Flow cytometry; FS=Functional studies; IA=Immuno assays; IF=Immuno fluorescence; IP=Immuno precipitation; P=Paraffin sections; W=Western blot

**Storage and stability** Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

**Precautions** For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

- References**
- Flaris, N et al; Characterization of microglia and macrophages in the central nervous system of rats: definition of the differential expression of molecules using standard and novel monoclonal antibodies in normal CNS and in four models of parenchymal reaction. *Glia* 1993, 7: 34
  - McGrath, Y et al; Development of adenovirus vectors encoding rat complement regulators for use in therapy in rodent models of inflammatory diseases. *J Immunol* 1999, 163: 6834
  - Fraser, D et al; Bacterial expression and membrane targeting of the rat complement regulator Crry: a new model anticomplement therapeutic. *Protein Sci* 2002, 11: 2512
  - Hanna, S et al; Rat T cells express neither CD55 nor CD59 and are dependent on Crry for protection from homologous complement. *Eur J Immunol* 2002, 32: 502

**MONOCLONAL ANTIBODY TO  
RAT-COMPLEMENT REGULATOR CRRY  
clone TLD-1C11**



---

<b>Also available</b>	HM3032F	FITC conjugated monoclonal antibody against Rat Crry, clone TLD-1C11
	HM3033	Monoclonal antibody against Rat C5b-9 , clone 2A1
	HM3034	Monoclonal antibody against Rat C6, clone 3G11
	HP8021	Polyclonal antibody against Rat C1q
	HP8022	Polyclonal antibody against Rat C3