

**International Blood Group
Reference Laboratory**500 North Bristol Park
Northway
Filton
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Antigen	Blood Group Rh Related
Clone	BRIC 69
Product Code	9423
Immunoglobulin Class	Mouse IgG1, kappa light chain

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and Production Unit**

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Rh is the most complex of the human blood group systems, with 45 well-defined antigens. BRIC 69 and other antibodies of similar specificity (such as LICR/LON R6A) have been used in immunoprecipitation experiments to identify transmembrane proteins of Mr 31kDa and Mr 35-52kDa on normal erythrocytes which are not found in Rh_{null} erythrocytes¹. The sequence of cDNA encoding one of the 30k proteins has been cloned^{2,3}.

Clone

BRIC 69 was made in response to human erythrocytes¹. In the blood, BRIC 69 reactivity is confined to erythrocytes. The erythroleukaemic cell line HEL shows weak reactivity. BRIC 69 recognises around 150,000 sites (whole IgG) and 200,000 sites (Fab fragments) on erythrocytes of normal Rh types⁴. BRIC 69 fails to react with Rh_{null} erythrocytes. BRIC 69 was submitted to the second international workshop on monoclonal antibodies against human red blood cells and related antigens, Lund 1990⁵. BRIC 69 has been used to elucidate protein distribution during human erythroblast enucleation⁶. BRIC 69 was used by flow cytometry to analyse D-positive erythrocyte sub-populations⁷.

References

1. Avent ND *et al* (1988) *Biochem. J.* **251** 499-505.
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3. Cherif - Zahar B *et al* (1990) *Proc. Natl. Acad. Sci. (USA)* **87** 6243-6247.
4. Gardner B *et al* (1991) *Transf. Med.* **1** 77-85.
5. Chester MA *et al* (ed) (1990) *Proceedings of the second international workshop and symposium on monoclonal antibodies against human red blood cells and related antigens, Lund 1990.*
6. Bell AJ, *et al* (2013). Protein Distribution during Human Erythroblast Enucleation *In Vitro*. *PLoS ONE* Volume **8** (Issue 4) e60300.
7. Kormoczi GF *et al* (2007) *Blood* 110:2148-2157.