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Antigen	Wr^b (ISBT No.211002)
Clone	BRIC 14
Product Code	9413
Immunoglobulin Class	Mouse IgG2a, kappa light chain

Antigen Description and Distribution

The Wr^b antigen is defined as the amino acid sequence at residue 658 (GLU) of the major erythrocyte anion transport protein band 3[1,2,3]. The antigen is stabilised by the association between band 3 and Glycophorin A (GPA, CD 235a). It is found only on erythroid cells. There are approximately 10^6 antigen sites per erythrocyte[4]. The antigen is found on all human erythrocytes except for the very rare Wr(b-) and Glycophorin A deficient types.

Clone

BRIC 14 was made in response to erythrocytes. It is unreactive by immunoblotting. BRIC 14 is an indirect haemagglutinin which has a functional binding affinity for erythrocytes of 3.2 x 10^7 M^{-1}. Incubation of erythrocytes with BRIC 14 causes a dramatic reduction in erythrocyte deformability and inhibits invasion by malarial parasites (*Plasmodium falciparum* and *P. knowlesi*)[5]. BRIC 14 has been used to investigate the key membrane protein changes during *in vitro* erythropoesis of Protein 4.2 cells[6].

References

1. Paulitschke *et al*. Blood 1995, **86**: 342-348.
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5. Pasvol G. *et al* (1989) Blood **74**, 1836-1843.
6. Van den Akker E *et al* (2010). Investigating the key membrane protein changes during in vitro erythropoiesis of protein 4.2 (-) cells (mutations Chartres 1 and 2). Haematologica Aug; **95**(8):1278-86.