

**International Blood Group  
Reference Laboratory**500 North Bristol Park  
Northway  
Filton  
Bristol  
BS34 7QH

<b>Antigen</b>	A / Tn / GalNAc $\alpha$ 1
<b>Clone</b>	BRIC 66
<b>Product Code</b>	9418
<b>Immunoglobulin Class</b>	Mouse IgM, kappa light chain

**Protein Development  
and Production Unit****Tel:** +44 (0)117 921 7500  
**Fax:** +44 (0)117 912 5796**Website:** <http://ibgri.blood.co.uk>**Email:** [enquiries.IBGRL@nhsbt.nhs.uk](mailto:enquiries.IBGRL@nhsbt.nhs.uk)**Antigen Description and Distribution**

The histo - blood group A antigen is defined by the carbohydrate structure at the non-reducing termini of oligosaccharide chains of glycoproteins and glycolipids. The minimal determinant structure of the A antigen is GalNAc( $\alpha$ 1-3) Fuc( $\alpha$ 1-2) Gal ( $\beta$ 1-R). Terminal GalNAc( $\alpha$ -1) also occurs in other linkages<sup>1</sup>. The A antigen is widely distributed in the erythrocytes, cells and tissues, and in body fluids of A positive individuals, and also in other animals<sup>2</sup>. The reactive group GalNAc( $\alpha$ 1-Ser) (or Thr) is exposed in sialoglycoproteins of blood cells of individuals with the Tn syndrome, irrespective of their A antigen status.

**Clone**

BRIC 66 was made in response to immunisation with A active ovarian cyst glycoprotein. In haemagglutination tests, it is inhibited by A active ovarian cyst glycoprotein, Synsorb A and, unusually for anti-A's, N-acetyl-D-galactosamine. It is not inhibited by B active ovarian cyst glycoprotein, Synsorb B or D-galactose. BRIC 66 agglutinates Tn and group A erythrocytes<sup>3</sup>. BRIC 66 in conjunction with BRIC 111 has been used to look at the expression of alpha-GalNAc glycoproteins by breast cancers<sup>4</sup>.

**References**

1. Clausen H, Hakomori S. (1989) *Vox Sang.* **56** 1 - 20 (Review).
2. Oriol R, Le Pendu J, Mollicone R. (1986) *Vox Sang* **51** 161 - 171 (Review).
3. King MJ, Parsons SF, Wu AM, Jones N. (1991) *Transfusion* **31** 142 – 149.
4. Brooks S.A *et al* (1995) Expression of alpha-GalNAc glycoproteins by breast cancers. *British J. of Cancer* **71**, 1033-1038.

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