

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

<b>Antigen</b>	Tn / CD 175
<b>Clone</b>	BRIC 111
<b>Product Code</b>	9414
<b>Immunoglobulin Class</b>	Mouse IgG1, kappa light chain

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

Tn is a cryptantigen. It is defined as the core structure of O- glycans ( $\alpha$ GalNAc-0-Ser/Thr) but different antibodies may require a contribution to the antigen structure from sialic acid substitution and/or adjacent polypeptide. The antigen is not expressed on normal haemopoietic cells but becomes exposed as a result of an acquired deficiency of  $\beta$ 1,3 D-galactosyl transferase<sup>1</sup>. Exposure of Tn antigen on haemopoietic cells is associated with polyagglutination<sup>2</sup> and, in some cases thrombocytopenia and/or leucopenia. Detection of the antigen prior to the onset of leukemia has been reported<sup>3,4</sup>. The Tn antigen has also been described as a useful marker for some types of cancer cells.

**Clone**

BRIC 111 was made in response to Tn positive erythrocytes. It is a direct agglutinin of Tn erythrocytes but unreactive with normal erythrocytes including Group A<sub>1</sub> erythrocytes. BRIC 111 is specific for Tn antigen on Glycophorin A and Glycophorin B in human erythrocytes. BRIC 111 reacts with tumor cells from breast carcinoma and adenocarcinoma in tissue staining by overnight incubation at 4°C<sup>5</sup>. BRIC 111 was submitted to the second international workshop on monoclonal antibodies against human red blood cells, Lund 1990<sup>6</sup>. BRIC 111 has been used to look at the expression of alpha-GalNAc glycoproteins by breast cancers<sup>7</sup>.

**References**

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3. Baldwin M.L., *et al* (1979) Amer. J. Clin. Path. **72** 1024-1027.
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5. King M. J., *et al* (1991) Transfusion **31**, 142-149.
6. 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.
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