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Antigen	CD47
Clone	BRIC 126
Product Code	9408
Immunoglobulin Class	Mouse IgG2b, kappa light chain

Antigen Description and Distribution

CD47 is a heavily N-glycosylated hydrophobic cell membrane glycoprotein of apparent molecular weight 45-60 kDa on erythrocytes and 47-55 kDa on platelets. Analysis of the CD47 amino acid sequence predicts that the protein has an extracellular immunoglobulin (IgV)-like domain at the amino-terminus (about 120 amino acids), five membrane spanning segments (about 152 amino acids), and a short hydrophobic intracytoplasmic tail (about 30 amino acids). The gene encoding human CD47 is located on q13.1-13.2 on human chromosome 3. The glycoprotein function is of an adhesion and thrombospondin receptor. CD47 has a very broad tissue distribution and is present on hemopoetic cells, epithelial cells, fibroblasts, brain, tumour cell lines, mesenchymal cells. There are approximately 50,000 CD47 molecules per erythrocyte. The glycoprotein is deficient in erythrocytes of the rare Rh null phenotype[1].

Clone

BRIC 126 was made in response to human erythrocytes[2]. It has a functional binding affinity to erythrocytes[3] of 2.8 x $10^8 M^{-1}$. It binds to a component of 47-52kDa on immunoblots of erythrocyte membranes under non- reducing conditions. BRIC 126 directly haemagglutinates untreated and pronase treated normal erythrocytes, but shows weaker reactions with Rh null erythrocytes, reacting only by the indirect antiglobulin technique or after pronase treatment. BRIC 126 can be used with frozen tissue sections[4]. BRIC 126 was clustered in CD47 at the fourth leucocyte workshop[1] and was also submitted to the fifth and sixth leucocyte workshop[5,6]. BRIC 126 has been used to investigate the key membrane protein changes during *in vitro* erythropoesis of Protein 4.2 cells[7].

References

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