

## Platelet crossmatching

### MASPAT

MASPAT is a solid-phase microwell plate system for the detection of platelet antibodies (anti-HLA and anti-HPA) in serum by testing donor platelets with patient serum in a crossmatching assay. The MASPAT kit contains sufficient reagents to test 36 patient-donor combinations. MASPAT Indicator Red Cells are supplied separately, so the MASPAT kit's expiration date is not limited by the relative short shelf-life of these cells.

<i>article number</i>	<i>package</i>	<i>description</i>
K1360	Kit	MASPAT kit <i>The kit contains: One pre-coated microtiter plate wells (12 x 8 well strips)</i> <i>1 ml MASPAT positive control</i> <i>1 ml MASPAT negative control</i> <i>10ml MASPAT LISS (low ionic strength solution)</i> <i>6ml MASPAT anti-IgG mouse monoclonal antibody</i>
K1139	10ml	MASPAT Indicator Red Cells <i>10ml 0.3% sensitised erythrocyte suspension</i>

#### Test principle

A monolayer of donor platelets is immobilised by centrifugation onto the surface of the microtiter plate wells, which is coated with platelet-specific (mouse) monoclonal antibody. Patient serum and low ionic strength solution (LISS) are incubated in the appropriate wells, allowing serum antibodies to bind to the immobilised platelet monolayer. After incubation, non-bound serum components are removed by washing. Platelet-bound antibodies are detected by the addition of mouse monoclonal anti-human IgG and human IgG sensitised erythrocytes (indicator red cells) and subsequent centrifugation of the microtiter plate. In case of a positive reaction the anti-human IgG and indicator red cells bind to the serum antibodies on the platelet monolayer. Positive reactions are thus characterised by adherence of indicator red blood cells throughout the surface of the wells, whereas negative reactions produce discrete pellets of indicator red cells in the middle of the well.

Thanks to the speed and simplicity of this method, most hospitals will be able to perform platelet antibody screening before routine platelet transfusions. But even in laboratories which do have access to HLA-typed donor panels, MASPAT will provide important information. It is the general experience that in a significant proportion of HLA-matched platelet transfusions administered to allo-immunised patients there is no satisfactory rise in platelet count. This is caused by platelet specific antibodies (HPA)