**Monoclonal Anti-human Thrombopoietin R Antibody**

**Background**
Thrombopoietin receptor (Tpo R), also known as CD110, is a type I membrane protein belonging to the hematopoietin/cytokine receptor superfamily. Tpo R is expressed by hematopoietic progenitor cells, megakaryocytes and platelets and is involved in the regulation of megakaryocytopoiesis and thrombopoiesis.

**Preparation**
This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, NS0-derived, recombinant human Tpo R extracellular domain (rhTpo R; aa 25 - 491; Accession # P40238). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

**Formulation**
Lyophilized from a 0.2 μm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

**Reconstitution**
Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 500 μg/mL.

**Storage**
Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

**Specificity**
This antibody detects rhTpo R in Western blots. In this format, this antibody showed no cross-reactivity with rmTpo R or rhEpo R.

**Applications**

- **Western blot** - This antibody can be used at 1 - 2 μg/mL with the appropriate secondary reagents to detect human Tpo R. Using a colorimetric detection system the detection limit for rhTpo R is approximately 25 ng/lane under non-reducing and reducing conditions. Chemiluminescent detection will increase sensitivity by 5 to 50 fold.

- **Flow cytometry** - This antibody was tested for flow cytometry using TF-1 cells. Dilute this antibody to 25 μg/mL and add 10 μL of the diluted solution to 1 - 2.5 x 10^6 cells in a total reaction volume not exceeding 200 μL. The binding of unlabeled antibodies may be visualized by adding a secondary developing reagent such as anti-mouse IgG conjugated to a fluorochrome.

Optimal dilutions should be determined by each laboratory for each application.