

## **Magic™ Fc Receptor Blocker (AZIDE-FREE)**

**Cat. No. CDN-ZF3 (30 mL, for 350-600 slides)  
For Research Use Only**

### **INTRODUCTION**

**Fc receptors** (FcRs) are glycoproteins of approximate molecular weights of 50-70 kD. They are expressed by many different cell types in the immune system, and their interaction with antibody can initiate a broad spectrum of effector functions that are important in host defense. These functions include phagocytosis of antibody-coated microbes, lysosomal degradation of endocytosed immune complexes, antibody-dependent cell-mediated cytotoxicity, secretion of cytokine and chemokines, release of potent inflammatory mediators, enhancement of antigen presentation, and regulation of antibody production by B lymphocytes, and plasma cell survival.

### **PRODUCT DESCRIPTION**

**Fc Receptor Blocker** can be used as a blocking agent to block Fc receptors present on hematopoietic (blood derived), lymphoid cells/tissues and tumor cells and cell lines. The binding of the Fc region of the primary or the secondary antibody to the Fc receptors present on the surface of leukocytes (white blood cells) or tumor cells gives rise to non-specific binding and is observed as background or non-specific staining in IHC, fluorescence and flow cytometry assays.

**Magic™ Fc receptor blocker (azide-free) does not contain sodium azide or thimerosal** and it is therefore suitable for effective blocking of Fc receptors in non-fixed live cells of lymphoid and hematopoietic origin as well as tumor cells and cell lines that carry Fc receptors on their surface. Specimens rich in Fc receptors are many and include tonsil, bone marrow, lymph nodes, blood cell preparations melanomas and majority of tumor cells and cell lines.

**Magic™ Fc receptor blocker (azide-free) is especially helpful for blocking Fc receptors in tumor cells or cell lines employed in functional assays where sodium azide and other preservatives cause endocytosis and result in cytotoxicity and cell damage.**

### **APPLICATION/INTENDED USE**

This reagent is intended to be used as a blocking agent for blocking Fc receptors in hematopoietic, lymphoid specimens as well as tumor cells and cell lines that express Fc.

## PRODUCT FORMAT

Working solution, no dilution or adjustments necessary.

## STORAGE CONDITIONS

Store in refrigerator at 2-8° C through the expiration date noted on the vial label.

## INSTRUCTIONS

### **For Blocking Fc receptors in live cells and for use in functional assays**

Magic™ Fc receptor blocker (azide-free) is used in Non-Fixed live cells and cell lines and for functional assays where sodium azide and other preservatives cause endocytosis, cytotoxicity and cell damage.

**Live cell assays and functional assays are varied and are many in numbers. To block Fc receptors present on live cells or cell lines that express Fc receptors: Live cells must be exposed to Magic™ Fc receptor blocker (azide-free) for a period of at least 30-minutes. The optimal incubation time with Fc Blocker must be determined by the lab user for the specific cells, species and the assay condition employed.**

1. Add 0.2-0.5 ml of Fc receptor block for  $10^6$  cells
2. Incubate for 30 minutes to 2-hours on ice or at room temperature.
3. Rinse with assay wash buffer or DI water.
4. Proceed with assay.

### **For Flow Cytometry**

1. Lyse or ficol blood as usual.
2. Add 0.3 ml of Fc receptor block for  $10^6$  cells.
3. Incubate for 30 minutes on ice.
4. Wash twice in assay wash buffer.
5. Proceed with antibody staining.