

## **Fc RECEPTORS BLOCKER (Azide-free)**

**Preservative-free, Antibody-free, Ig-free**

**Universal-species Fc Blocker for human, mouse & all animals cells**

**For use with Live cells & Functional assays & Flow cytometry**

### *Technical Data Sheet*

#### Reagent Category

Azide-Free Fc Receptor Blocking agent

PRODUCT Number: NB335-60 (60ml)

PRODUCT Number: NB335 (30ml)

PRODUCT Number: NB335-5 (5ml)

#### Specific Reagents Supplied

- 5 ml of Azide-Free Fc Receptors Blocker; Ready-To-Use
- 30 ml of Azide-Free Fc Receptors Blocker; Ready-To-Use
- 60 ml of Azide-Free Fc Receptors Blocker; Ready-To-Use

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#### **INTRODUCTION**

**Fc receptors** are glycoproteins of approximate molecular weights of 50-70 kD. They are mostly present on white blood cells such as monocytes, tissue macrophages, B cells, T cells, granulocytes and on majority of tumor cells and cell lines. Fc receptors have great affinity for the Fc region of monomeric IgG (antibody) and non-specific staining and background staining can result from the binding of the Fc region of the Immunoglobulins/antibody to the Fc receptors present on cells. Such examples of Fc receptor rich specimens are lymphoid tissues, tonsil sections, bone marrow preparations, tumor cells, tumor cell lines melanomas and blood smears.

There are several types of Fc receptors (FcR) which are classified based on the antibody that they recognize. There are those that have great affinity for the Fc region of monomeric IgG antibody and are called Fc-Gamma receptors, those that bind to IgA antibody are called Fc-alpha receptors and those that bind IgE antibody are called Fc-epsilon receptors.

#### **PRODUCT DESCRIPTION**

**Fc Receptors 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 ICC, immunofluorescence and flow cytometry assays.

**Azide-free Fc receptors blocker 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.

**Azide-free Fc Receptors Blocker 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 receptors.

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## 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. **DO NOT FREEZE.**

## INSTRUCTIONS

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

Azide-free Fc Receptor Blocker is used for blocking Fc receptors in live cells and cell lines assays that employ live and non-fixed cells; And further for functional assays where presence of 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 that are present on live cells and cell lines that express Fc receptors:**

Live cells must be exposed to Innovex Fc Blocker 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, cell lines, species and the assay condition employed.

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

### For Flow Cytometry

1. Use whole blood OR lyse or ficol blood as usual
2. Add 0.2 ml of Fc receptor blocker for  $10^6$  cells.
3. Incubate for 30-minutes on ice or at room temperature.
4. Wash twice in assay wash buffer.
5. Proceed with antibody labeling.

**FOR PROFESSIONAL AND RESEARCH USE.**

**FOR ADDITIONAL TECHNICAL SUPPORT**

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