

UNIVERSAL Fc RECEPTOR BLOCKER

4X CONCENTRATE; Immunoglobulin-Free

Technical Data Sheet

Reagent Category

4X Concentrate Fc Receptor Blocking reagent

PRODUCT number: NB309-4X-15 (15ml)

PRODUCT number: NB309-4X-40 (40ml)

Specific Reagents Supplied

15 ml of 4X Fc Receptor Block

40 ml of 4X Fc Receptor Block

INTRODUCTION

Fc receptors (FcRs) are glycoproteins of approximate molecular weights of 50-70 kD. They are widely expressed throughout the immune cells. Fc receptors are present on leukocytes such as monocytes, tissue macrophages, B cells, granulocytes (eosinophils, basophils, neutrophils), NK cells and some T cells. Fc receptors are also present on mast cells, follicular dendritic cells, epithelial cells, endothelial cells, hepatocytes and langerhans cells among others. 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.

Non specific Fc receptors staining in assays such as IHC, ICC, Immunofluorescence (IF) and flow cytometry can result from the binding of the Fc region of the primary and/or secondary antibody or immunoglobulin isotypes to the Fc receptors of the cells. Eliminating Fc receptor staining is desirable in IHC, ICC, IF and Flow cytometry assays for the purpose of accurate data evaluation.

For IHC, ICC, IF testing: The binding of the Fc region of primary and/or secondary antibody and immunoglobulin isotypes to the Fc receptors present on cells/tissues give rise to non-specific Fc receptor staining. Specimens rich in Fc receptors include spleen, lymphoid tissues, lymphomas, tonsil, lymph nodes, bone marrow, blood smears and liver. Others include tissues and cell preps intended for staining for CD markers; Immunoglobulins (Igs), Kappa and Lambda and tumor cell lines that express Fc receptors.

To avoid Fc receptor staining; tissue sections and cell preparations are incubated with Innovex Fc Blocker for a short period prior to application of primary antibody or immunoglobulin isotypes (See instruction section of this data sheet).

For Flow cytometry assays: Fc receptors are present on leukocytes (white blood cells), many cell lines as well as other cell types in both human and animal cells/tissues. Fc receptors gives rise to non-specific Fc receptor-staining in flow cytometry assays by binding of Fc region of antibodies and isotype controls to Fc receptors of the cells. Non-specific Fc receptors staining can be eliminated by incubating cells with INNOVEX Fc Receptor Blocker for a variety of Flow cytometry assays such as CD phenotyping, leukemia typing and cell line studies. (See instruction section of this data sheet).

PRODUCT DESCRIPTION

Innovex Fc Receptor Blocker is a UNIVERSAL Fc Blocker applicable to blocking all types of Fc receptors such as Fc-gamma receptors of type I, II and III; Fc -epsilon receptors type I and II; Fc -alpha receptors, Fc α μ R and FcRn.

Innovex Fc Blocker does NOT contain antibodies, Immunoglobulins or immunoglobulin fragments.

INNOVEX Fc Blocker can be universally applied to block all types of Fc receptors in all-species including human, mouse and all-animals This Universal Fc Block can be used in a variety of Immunoassays such as IHC, ICC, Immunofluorescence and Flow cytometry. INNOVEX UNIVERSAL Fc BLOCK is suitable for blocking Fc receptors in frozen and paraffin tissue sections and cyto preps of human and all-animal species.

INNOVEX Fc Blocker is also commonly used for eliminating background staining in brain cells/tissues.

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PRODUCT FORMAT: 4X Concentrate.

DILUTE 1:4 with DEIONIZED REAGENT GRADE WATER PRIOR TO USE.

INSTRUCTIONS

DILUTE 1:4 with Deionized Reagent Grade water prior to use.

For Blocking Fc receptors for IHC, ICC and immunofluorescence (IF) sections:

1. Deparaffinize paraffin sections OR cut frozen sections, fix and rinse in water as usual.
2. Quench endogenous peroxidase by immersion in Peroxidase Block (only for Peroxidase- IHC and ICC staining).
3. Cover sections or smears with 3-6 drops of Fc receptor block to achieve full specimen coverage.
4. Incubate for 30-minutes at room temperature.
5. Rinse with DI water or PBS.
6. Proceed with IHC, ICC or IF staining as usual.

Innovex Fc Receptor Blocker can be used in autostainers as a pre-treatment step prior to application of other protein or serum blocking and before the primary antibody.

For Flow Cytometry Blocking of Fc receptors

DILUTE 1:4 WITH DEIONIZED REAGENT GRADE WATER PRIOR TO USE.

1. Lyse or ficol blood or use whole blood.
2. Add 150 to 300 of microliter of 1X working solution of Fc receptor block for 10^6 (1-million) cells.
3. Incubate for 30-minutes on ice OR at room temperature.
4. Wash twice in assay wash buffer.
5. Proceed with antibody labeling.

STORAGE CONDITION

Store in refrigerator at 2-8°C through the expiration date noted on the vial label; DO NOT FREEZE.

FOR PROFESSIONAL AND RESEARCH USE ONLY

**FOR ADDITIONAL TECHNICAL SUPPORT
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