

## Reagents Provided

**NorthernLights™ 557 (NL557)-conjugated goat polyclonal anti-human IL-1 $\beta$ :** Supplied as a 10X solution of antibody in 0.5 mL PBS containing 0.1% sodium azide.

**Isotype:** goat IgG

## Storage

Reagents are stable for **twelve months** from date of receipt when stored in the dark at 2° - 8° C.

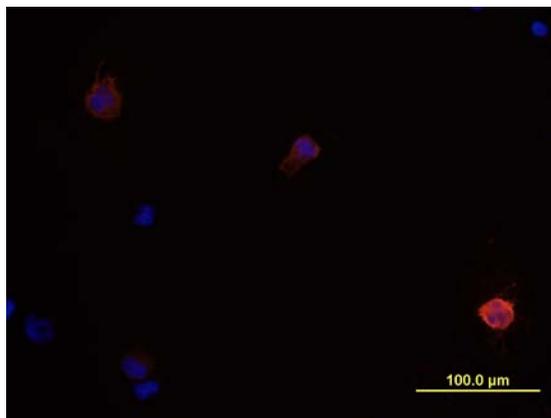
## Intended Use

Designed to visualize the expression of human IL-1 $\beta$  by fluorescence microscopy.

## Product Description

Produced in goats immunized with purified, *E. coli*-derived, recombinant human interleukin 1 beta (rhIL-1 $\beta$ ). IL-1 $\beta$  specific IgG was purified by human IL-1 $\beta$  affinity chromatography. The purified antibody was then conjugated to fluorochrome NL557. The spectral characteristics of NL557 are provided, along with those of Rhodamine Red™-X (RRX) and Cy™3 for comparison.

Fluorochrome	Absorption Maximum (nm)	Emission Maximum (nm)
NL557	557	574
RRX	570	590
Cy3	548	562



**Human IL-1 $\beta$ -NL557**

LPS stimulated human peripheral blood mononuclear cells were stained with NL557-conjugated anti-human IL-1 $\beta$  (Catalog # 201R, red) and counterstained with DAPI (blue).

## Background Information

IL-1 $\beta$ , also known as IL1F2, is a prototypical member of the IL-1 superfamily. It is produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. The biological activity of IL-1 $\beta$  is mediated by the heterodimeric receptor complex containing IL-1 R1 (IL-1 RI) and IL-1 R3 (IL-1 RAcP). The IL-1 $\beta$  propeptide is cleaved intracellularly by caspase-1/ICE to generate a 17 kDa active cytokine. Mature human IL-1 $\beta$  shares 77% aa sequence identity with mouse and rat IL-1 $\beta$ .

## Immunocytochemistry Validation

This antibody has been tested for immunocytochemistry using LPS stimulated human peripheral blood mononuclear cells. Cells were fixed in PBS containing 4% paraformaldehyde, and blocked with PBS containing 10% normal donkey serum, 0.1% Triton® X-100, and 1% BSA. After blocking, cells were incubated with NL557-conjugated antibody at a final concentration of 1X (1:10 dilution) in blocking buffer for 3 hours in the dark. Between each step, cells were washed with PBS containing BSA. If a staining volume of 250  $\mu$ L is used, this kit can be used for 20 tests; 100 tests can be done in a staining volume of 50  $\mu$ L.

**Warning:** Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

This product is covered by one or more of the following U.S. patents: 4,766,069, 5,510,462, 5,681,933, 4,762,914, 5,474,899, 5,789,185, 5,484,887, 5,122,459, 5,001,057, 5,077,219, 5,286,847.

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