

## Technical Data Sheet

## Protein Transport Inhibitor (Containing Monensin)

## Product Information

**Material Number:** 554724  
**Size:** 0.7 mL

## Description

The ex vivo addition of BD GolgiStop™, a protein transport inhibitor containing monensin, to in vitro- or in vivo-stimulated lymphoid cells blocks their intracellular protein transport processes. This results in the accumulation of cytokines and/or proteins in the Golgi complex. The increased accumulation of cytokines in the cell enhances the detectability of cytokine-producing cells with flow cytometric analysis.

Investigators should note that the appearance of BD GolgiStop™ may range in color from clear (colorless) to a light yellow.

## Preparation and Storage

Store undiluted at 4°C.

## Application Notes

## Application

Intracellular staining (flow cytometry)	Routinely Tested
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## Recommended Assay Procedure:

**Stimulation of Cells:** Various *in vitro* methods have been reported for stimulating cells to produce cytokines. Polyclonal activators have been particularly useful for inducing cytokine-producing cells. These activators include the following: concanavalin A, lipopolysaccharide, phorbol esters plus calcium ionophore or ionomycin, phytohaemagglutinin, staphylococcus, enterotoxin B, and monoclonal antibodies directed against subunits of the TCR/CD3 complex (with or without antibodies directed against costimulatory receptors, such as CD28).

**Procedure for Using BD GolgiStop™:** Add 4 µl of BD GolgiStop™ for every 6 mL of cell culture (e.g.,  $\sim 10^6$  cells/mL) and mix thoroughly. Treatment of stimulated cells for 4 to 6 hours with BD GolgiStop™ significantly increases the ability to detect cytokine-producing cells by immunofluorescent staining. It is recommended that BD GolgiStop™ not be kept in cell culture for longer than 12 hours.

As an alternative to BD GolgiStop™, investigators may wish to use BD GolgiPlug™, a protein transport inhibitor containing brefeldin A (Cat. No. 555029). BD GolgiStop™ and BD GolgiPlug™ have been found to have differential effects on intracellular cytokine staining that is time, activator and cytokine dependent. These factors must be considered when carrying out intracellular staining.

**Danger:** BD GolgiStop™ Protein Transport Inhibitor, containing monensin (component 51-2092KZ) contains 99.61% ethanol (w/w) and 0.26% monensin, mononatriumsalz (w/w).

## Hazard statements:

Highly flammable liquid and vapor.

Causes serious eye irritation.

## Precautionary statements:

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Wear protective gloves / eye protection.

Wear protective clothing.

IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Dispose of contents / container in accordance with local / regional / national / international regulations.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
555028	BD Cytotfix/Cytoperm Plus Kit (with BD GolgiPlug)	250 Tests	(none)
554715	BD Cytotfix/Cytoperm Plus Kit (with BD GolgiStop)	250 Tests	(none)

## Product Notices

- Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

## BD Biosciences

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