CDw17 Antibody / Lactosylceramide / LaCer [clone HuLy-m13] (V3052)

Catalog No.	Formulation	Size
V3052-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3052-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3052SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (14) **Bulk quote request**

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgM, kappa
Clone Name	HuLy-m13
Purity	PEG precipitation
UniProt	Not known
Localization	Cell surface
Applications	Flow Cytometry : 0.5-1ug/10^6 cells Immunofluorescence : 0.5-1ug/ml
Limitations	This CDw17 antibody is available for research use only.

Description

CDw17 antibody (clone HuLy-m13) detects Lactosylceramide (LaCer), a neutral glycosphingolipid and cell surface

antigen expressed on human leukocytes, endothelial cells, and certain epithelial tissues. The UniProt-associated antigen corresponds to the carbohydrate structure galactose beta one-four glucose beta one-one ceramide. Also known as CDw17, this lipid molecule functions in membrane architecture, immune signaling, and cellÃ¢Â€Â“cell communication through its role in organizing lipid rafts and modulating receptor clustering.

Functionally, CDw17 antibody identifies the lactosylceramide epitope, which serves as a biosynthetic precursor for complex glycosphingolipids such as gangliosides and globosides. In immune cells, LaCer participates in microdomain formation and acts as a signaling molecule that contributes to phagocytosis, cytokine production, and cell activation. On neutrophils and macrophages, CDw17 engagement promotes superoxide generation and inflammatory mediator release, linking it directly to innate immune responses. In endothelial and epithelial cells, LaCer influences adhesion, migration, and barrier function, reflecting its dual role as both a structural membrane component and a signaling modulator.

The HuLy-m13 clone specifically recognizes lactosylceramide expressed on the surface of human immune and endothelial cells. This monoclonal antibody enables researchers to examine LaCer distribution and expression dynamics under physiological and pathological conditions. Because LaCer acts as a key lipid intermediate, its detection with CDw17 antibody (clone HuLy-m13) provides valuable insight into glycosphingolipid metabolism and the regulation of cellular signaling pathways associated with inflammation and immune activation.

Elevated expression of CDw17 and accumulation of lactosylceramide have been linked to various pathological processes, including atherosclerosis, inflammatory disorders, diabetes, and tumor progression. In macrophages, LaCer facilitates inflammatory signaling and foam cell formation, contributing to vascular injury and atherogenesis. In cancer, altered glycosphingolipid metabolismÃ¢Â€Â”including increased LaCer levelsÃ¢Â€Â”supports tumor growth, invasion, and immune evasion. Because of these broad functional implications, the CDw17 antibody (clone HuLy-m13) serves as a useful research reagent for exploring the biological and pathological roles of lactosylceramide in cell signaling, immunity, and lipid biology.

CDw17 antibody (clone HuLy-m13) is validated for use in relevant research applications to detect lactosylceramide expression and study glycosphingolipid-mediated cellular processes. NSJ Bioreagents provides this monoclonal antibody optimized for use in immunology, lipid metabolism, and inflammation research.

Application Notes

Optimal dilution of the CDw17 antibody should be determined by the researcher.

Immunogen

Beta-2 Microglobulin associated proteins from a detergent lysate of human PBLs were used as the immunogen for the CDw17 antibody.

Storage

Store the CDw17 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).