# Thomsen-Friedenreich Antigen Antibody / CD176 [clone A68-B/A11] (V3098)

| Catalog No. | Formulation | Size |
|---|---|---|
| V3098-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V3098-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V3098SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

Citations (4)

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgM, kappa |
| **Clone Name** | A68-B/A11 |
| **Purity** | PEG precipitation |
| **UniProt** | Not Applicable |
| **Localization** | Cell surface |
| **Applications** | ELISA: 1-5ug/ml for coating (order BSA/sodium azide-free format) |
| **Limitations** | This Thomsen-Friedenreich Antigen antibody is available for research use only. |



## Description

Thomsen-Friedenreich Antigen antibody (clone A68-B/A11) detects the Thomsen-Friedenreich (T) antigen, also known as CD176, a tumor-associated carbohydrate antigen expressed on the surface of malignant cells. The molecular structure of this antigen corresponds to the disaccharide galactose beta one-three N-acetylgalactosamine alpha one-serine/threonine, which serves as the core one O-linked glycan. In normal cells, this antigen is masked by terminal sialic acid residues, but in many cancers, desialylation or defective glycosylation exposes the T antigen, making it a hallmark of tumor cell surfaces.

Functionally, the Thomsen-Friedenreich antigen contributes to cell adhesion, migration, and immune modulation. Its exposure on tumor cells promotes binding to lectins such as galectins and selectins, facilitating adhesion to endothelium and extracellular matrix components during metastasis. Under physiological conditions, CD176 remains cryptic, but in neoplastic tissues it becomes unmasked on mucins, cadherins, and integrins due to altered glycosyltransferase activity. This aberrant exposure drives tumor progression and immune evasion while offering a unique marker for cancer detection.

The T antigen is expressed across a wide range of carcinomas, including those of the breast, colon, lung, pancreas, and bladder, as well as certain hematologic malignancies. Its presence correlates with advanced tumor grade, increased metastatic potential, and poor clinical outcomes. Because of its minimal expression in normal tissues, the Thomsen-Friedenreich antigen has emerged as a valuable diagnostic and therapeutic target in oncology and cancer glycobiology research.

Clone A68-B/A11 is a mouse monoclonal antibody that specifically recognizes the exposed carbohydrate epitope of Thomsen-Friedenreich Antigen (CD176). This clone has been cited in multiple peer-reviewed publications for its use in immunohistochemistry, flow cytometry, and tumor biomarker studies. It has been employed in research investigating aberrant O-glycosylation, tumor cell surface remodeling, and the diagnostic relevance of CD176 expression in metastatic cancers. Its performance has been demonstrated in both formalin-fixed and frozen tissue samples, confirming its value in studying cancer-associated carbohydrate antigens.

Thomsen-Friedenreich Antigen antibody (clone A68-B/A11) is validated for use in relevant research applications to detect tumor-associated glycan structures and study the mechanisms of altered glycosylation in cancer. NSJ Bioreagents provides this monoclonal antibody optimized for oncology, glycobiology, and tumor marker analysis.

## Application Notes

Optimal dilution of the Thomsen-Friedenreich Antigen antibody should be determined by the researcher.

## Immunogen

Neuraminidase-treated human red blood cells were used as the immunogen for the Thomsen-Friedenreich Antigen antibody.

## Storage

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

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