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# Thomsen-Friedenreich Antigen / CD176 (Pan Carcinoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM320 ]
Catalog # AH12948

## Product Information

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|---|---|
| **Application** | IHC, IF |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgM, kappa |
| **Clone Names** | SPM320 |
| **Calculated MW** | Multiple |

## Additional Information

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| **Application Note** | IHC~~1:100~500 IF~~1:50~200 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | Thomsen-Friedenreich Antigen / CD176 (Pan Carcinoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Background

Recognizes a disaccharide epitope, Gal1-3GalNAc, of Thomsen-Friedenreich (TF) antigen. It is specific for both anomeric forms of the disaccharide (TF and TF, including related structures on the glycolipid) and shows no cross-reactivity with sialylated glycophorin. The Thomsen-Friedenreich antigen acts as an oncofetal antigen, with low expression in normal adult tissues but increasing to fetal levels of expression in hyperplasia or malignancy. It is considered as a pan-carcinoma marker. This MAb is capable to agglutinate desialylated red blood cells. During metastasis, the ability of malignant cells to form multicellular aggregates via homotypic or heterotypic aggregation and their adhesion to the endothelium are critical. The tumor-associated carbohydrate Thomsen-Friedenreich antigen (Gal-GalNAc) is involved in tumor cell adhesion and tissue invasion. It also causes an immune response, and overexpression of the antigen causes cancer cells to be more sensitive to natural killer cell lysis. The Thomsen-Friedenreich antigen is suppressed in normal healthy cells and represents one of the few chemically well-defined antigens associated with tumor malignancy. The presence of the Thomsen-Friedenreich antigen on the surface of cancer cells may result from a divergence from the normal pathway for O-linked glycosylation in these cells, most likely caused by inappropriate localization of the enzymes involved in synthesis of the disaccharide.

## References

Karsten U et al. A new monoclonal antibody (A78-G/A7) to the Thomsen-Friedenreich pan-tumor antigen. Hybridoma 1995, 14(1):37-44 | Cao Y. et al., Thomsen-Friedenreich-related carbohydrate antigens in normal

adult human tissues: a systematic and comparative study. Histochem Cell Biol 106:197-207 (1996). | Baldus SE et al. Coexpression of MUC1 mucin peptide core and the Thomsen-Friedenreich antigen in colorectal neoplasms. Cancer 1998, 82(6):1019-27 | Ryder SD et al.Peanut ingestion increases rectal proliferation in individuals with mucosal expression of peanut lectin receptor. Gastroenterology 1998, 114(1):44-9 | Kanitakis J et al. Differential expression of the cancer associated antigens T (Thomsen-Friedenreich) and Tn to the skin in primary and metastatic carcinomas. J Clin Pathol 1998, 51(8):588-92. |

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