

**Mouse Anti-Thomsen-Friedenreich Antigen / CD176 (Pan Carcinoma Marker) [SPM320]: MC0085**

**Intended Use:** For Research Use Only

**Description:** 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 glycoprotein. 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.

**Specifications**

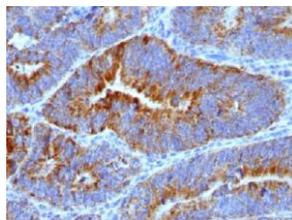
Clone: SPM320  
 Source: Mouse  
 Isotype: IgGM/k  
 Reactivity: Human, mouse, rat  
 Localization: Membrane  
 Formulation: Protein A/G purified antibody from bioreactor concentrate. Prepared in 10mM PBS with 0.2% BSA and < 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles  
 Applications: IHC, ICC/IF  
 Package:

| Description  | Catalog No. | Size |
|--|-------------|------|
| Thomsen-Friedenreich Antigen / CD176 (Pan Carcinoma Marker) Concentrated | MC0085      | 1 ml |

**IHC Procedure\***

Positive Control Tissue: KG1 cells or human colorectal carcinoma tissues  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human colorectal carcinoma stained with anti-Thomsen-Friedenreich Antigen using DAB

**References**

1. Peanut ingestion increases rectal proliferation in individuals with mucosal expression of peanut lectin receptor. Ryder SD et al. *Gastroenterology* 114(1):44-9, 1998.
2. Differential expression of the cancer associated antigens T (Thomsen-Friedenreich) and Tn to the skin in primary and metastatic carcinomas. Kanitakis J et al. *J Clin Pathol* 51(8):588-92, 1998.