

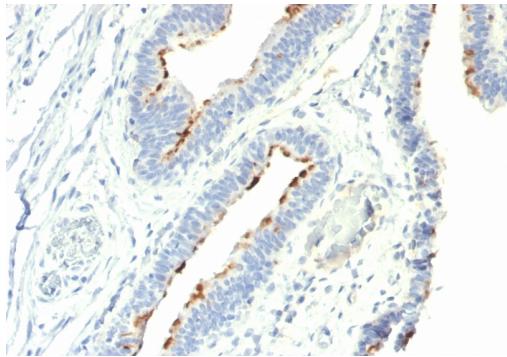
## Thomsen-Friedenreich Antigen / CD176 (Pan Carcinoma Marker)

Mouse Monoclonal Antibody [Clone A78-G/A7]

Catalog No	Format	Size	Price (USD)
MSM1-936-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug	219.00
MSM1-936-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug	499.00
MSM1-936-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug	499.00

Human Entrez Gene ID	Not Applicable
Human SwissProt	Not Applicable
Human Unigene	Not Applicable
Human Gene Symbol	Not Applicable
Human Chromosome Location	Not Applicable
Synonyms	T-F Antigen; TF Antigen; Asialoglycophorin; pan-carcinoma marker; CD176

Immunogen	Neuraminidase-treated human red blood cells
Host / Ig Isotype	Mouse / IgM, kappa
Mol. Weight of Antigen	Multiple
Cellular Localization	Cell Surface
Species Reactivity	Human, Mouse and Rat. Others-not known.
Positive Control	KG1 cells or human colorectal carcinoma tissues.



Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with T-F Antigen / CD176 Mouse Monoclonal Antibody (A78-G/A7).

## Specificity & Comments

Recognizes a disaccharide epitope, Gal  $\beta$  1-3GalNAc, of Thomsen-Friedenreich (TF) antigen. It is specific for both anomeric forms of the disaccharide (TF and TF  $\alpha$  ', 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.

## Known Applications & Suggested Dilutions

Immunofluorescence (1-2ug/ml)

Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT)

(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes)

Optimal dilution for a specific application should be determined.

## Key References

1. Karsten U et al. A new monoclonal antibody (A78-G/A7) to the Thomsen-Friedenreich pan-tumor antigen. *Hybridoma* 1995, 14(1):37-44
2. 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).
3. Baldus SE et al. Coexpression of MUC1 mucin peptide core and the Thomsen-Friedenreich antigen in colorectal neoplasms. *Cancer* 1998, 82(6):1019-27
4. Ryder SD et al. Peanut ingestion increases rectal proliferation in individuals with mucosal expression of peanut lectin receptor. *Gastroenterology* 1998, 114(1):44-9
5. 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.

## Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

## Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

## Limitations

This antibody is available for research use only and is not approved for use in diagnosis.

## Warranty

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.