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36-3737: Anti-Thomsen-Friedenreich Antigen / CD176 (Pan Carcinoma Marker) Monoclonal Antibody(Clone: SPM320)

Clonality :	Monoclonal
Clone Name :	SPM320
Application :	IF,IHC
Reactivity :	Human, Mouse, Rat
Alternative Name :	T-F Antigen; TF Antigen; Asialoglycophorin; pan-carcinoma marker; CD176
Isotype :	Mouse IgM, kappa
Immunogen Information :	Neuraminidase-treated human red blood cells

Description

Recognizes a disaccharide epitope, Gal 1-3GalNAc, 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.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/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 condition :	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.

Application Note

Immunofluorescence (1-2ug/ml); Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95&degC followed by cooling at RT for 20 minutes);

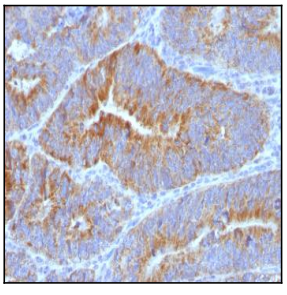


Fig. 1: Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with Thomsen-Friedenreich Monoclonal Antibody (SPM320) at 4µg/ml. Antigen retrieval in 10mM Citrate buffer, pH 6.0; ABC detection system with DAB Chromogen. Note Cell Surface staining of epithelial cells.

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