

# Thomsen-Friedenreich Antigen / CD176 Monoclonal Mouse Antibody (A63-C/A9)

## Product Description

This antibody 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<sub>2</sub>, 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.

This antibody is available purified, with BSA and azide (0.2 mg/mL) or purified, BSA-free and azide-free (1 mg/mL).

## Product attributes

Antibody number	#0938
Antibody reactivity (target)	CD176, Thomsen-Friedenreich Antigen
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	A63-C/A9
Isotype	IgM, kappa
Molecular weight	Multiple
Synonyms	T-F Antigen; TF Antigen; Asialoglycoprotein; pan-carcinoma marker; CD176
Human gene symbol	Not Applicable
Entrez gene ID	Not Applicable
SwissProt	Not Applicable
Unigene	Not Applicable
Immunogen	Neuraminidase-treated human red blood cells
Verified antibody applications	IHC (FPPE) (verified)
Antibody target cellular localization	Plasma membrane
Species reactivity	Human, Mouse, Rat
Antibody application notes	Immunohistochemistry (formalin-fixed): 1-2 ug/mL for 30 minutes at 37°C, Immunohistochemistry: frozen: 0.5-1.0 ug/mL for 30 minutes at RT, Immunofluorescence: 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes, Optimal dilution for a specific application should be determined by user
Positive control	KG1 cells, Human colorectal carcinoma tissues.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Antibody research areas	Cancer