

## Thomsen-Friedenreich Antigen / CD176 Monoclonal Mouse Antibody (A78-G/A7)

### 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<sup>-</sup>, including related structures on the glycolipid) and shows no cross-reactivity with sialylated glycoporphin. 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). **Catalog number key for antibody number 0936, Anti-CD176|Thomsen-Friedenreich Antigen (A78-G/A7)**

### Product attributes

Antibody number	#0936
Antibody reactivity (target)	CD176, Thomsen-Friedenreich Antigen
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	A78-G/A7
Isotype	IgM, kappa
Molecular weight	Multiple
Synonyms	T-F Antigen; TF Antigen; Asiaglycophorin; 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 (FFPE) (verified)
Antibody target cellular localization	Plasma membrane
Species reactivity	Human, Mouse, Rat
Antibody application notes	Immunohistochemistry (formalin-fixed): 0.5-1.0 µg/mL for 30 minutes at RT, Immunofluorescence: 0.5-1 µg/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
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Antibody research areas	Cancer

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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