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Blood Group A & Forssman Antigen Monoclonal Mouse Antibody (HE-14)

Product Description

This antibody is applicable for staining ABO blood group A (monofucosyl and difucosyl A antigens with chain types 1, 2, 3, 4, 5, 6). It also recognizes Forssman antigen. It is also reactive with the immuno-dominant A trisaccharide. The histo-blood group ABO involves three carbohydrate antigens: A, B, and H. Blood group antigens are generally defined as molecules formed by sequential addition of saccharides to the carbohydrate side chains of lipids and proteins detected on erythrocytes and certain epithelial cells. Blood group related antigens represent a group of carbohydrate determinants carried on both glycolipids and glycoproteins. They are usually mucin-type, and are detected on erythrocytes, certain epithelial cells, and in secretions of certain individuals. Sixteen genetically and biosynthetically distinct but inter-related specificities belong to this group of antigens, including A, B, H, Lewis A, Lewis B, Lewis X, Lewis Y, and precursor type 1 chain antigens. Blood group antigen expression in human colon cancer was studied with two monoclonal antibodies of broad anti-A (clone HE-14) and anti-type 3 and type 4 chain-based A and H (clone HE-10) specificity. These antigens were proved to re-appear in tumors of the distal colon, the HE-10 antibody reacting more frequently (9 out of 12 samples) than HE-14 (5 out of 12 samples) and frequently with supra-nuclear staining of the cytoplasm probably in those places of the Golgi apparatus where carbohydrate antigens are synthesized. This staining pattern is characteristic of HE-10 in normal colonic mucosa as well. With HE-14, staining was often absent in less differentiated tumors, while HE-10 did react in such tumors. In some cases, these two antibodies gave different staining patterns in parallel sections from the same tissue sample, primarily at the cellular level. Three out of 12 cases showed blood group antigen expression in the mucosa of the distal colon adjacent to the tumor only when HE-10 Ab was used.

This antibody is available purified with BSA/azide at 200 ug/mL, or BSA/azide-free at 1 mg/mL.

Catalog number key for antibody number 0235, Anti-Blood Group A|Forssman Antigen (HE-14)

Product attributes

Antibody number	#0235
Antibody reactivity (target)	Blood Group A, Forssman Antigen
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	HE-14
Isotype	IgM, kappa
Molecular weight of antigen	Multiple
Synonyms	ABO Type A; Blood Group A; Forssman antigen
Human gene symbol	ABO
Entrez gene ID	28
SwissProt	P16442
Unigene	654423
Immunogen	Mixture of erythrocytes of blood group A1 and glycoprotein fraction isolated from the saliva of secretors with blood group A
Antibody target cellular localization	Plasma membrane
Species reactivity	Human
Expected antibody applications	IHC (published for clone)
Antibody application notes	Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin), Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM 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 by user
Positive control	KG1 cells or human colorectal carcinoma tissues.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
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
Antibody research areas	Cancer, Hematology
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 # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
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	

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

Neoplasma (1988) 36(4):479-488. (IHC)