OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for BM4077

Mucin-Like Carcinoma Antigen (MCA) Mouse Monoclonal Antibody [Clone ID: b-12]

Product data:

Product Type:	Primary Antibodies
Clone Name:	b-12
Applications:	IHC
Recommended Dilution:	Immunohistochemistry on: Frozen sections: 0.5 µg/ml (1/200). Paraffin sections: 4 µg/ml (1/25); Proteinase K pretreatment for antigen retrieval recommended. Suggested positive control: Human uterus. **Antigen Distribution:** In contrast to MCA producing tumors, the b-12 related antigen is only located at the MCA producing sites such as glandular cell surfaces or glandular tubuli. In MCA producing tumors, where cells become disorganized, the b-12 antigen is secreted into stromal tissue and blood vessels. (See Table 1.)
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Breast carcinoma cell lines.

Specificity:	b-12 is useful for identifying mucin-like carcinoma antigen (MCA) produced by various tumors and certain healthy glandular cells. In combination with other BMA markers for inflammation staging or investigating neo-vascularization processes b-12 is a valuable tool for studying tumor growth or regression. MCA is a 350 kDa glycoprotein with the typical biochemical characteristics of mucin-like glycoproteins (sialomucins) which protect surfaces. Antibody b-12 binds to the protein backbone of MCA, not to the large number of carbohydrate side chains. This antibody reacts with MCA producing cells. MCA consists of a polymorphic family of glycoproteins. The b-12 related antigenic epitope is located in the more constant region of MCA. Specificity for Human MCA producing cells.
Formulation:	PBS, buffer pH 7.2 with 0.05% Sodium Azide as preservative and 2 mg/ml BSA as stabilizer State: Aff - Purified State: Lyophilized purified Ig fraction.
Reconstitution Method:	Restore with 0.5 ml distilled water.
Concentration:	0.1 mg/ml
Purification:	Affinity Chromatography.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Synonyms:	Marker for Mucin Producing Cells

Note:

Protocol: **Protocol with frozen, ice-cold acetone-fixed sections:**

The whole procedure is performed at room temperature

1. Wash in PBS
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum.

Protocol with formalin-fixed, paraffin-embedded sections:

The whole procedure is performed at room temperature

1. Deparaffinize and rehydrate tissue section
2. Incubate the tissue section with proteinase K for 7 min.
3. Wash in distilled water
4. Block endogenous peroxidase
5. Wash in PBS
6. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
7. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
10. Wash in PBS
11. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
12. Wash in PBS
13. Counterstain with Mayer's hemalum.

Product images:

Healthy Tissues		Cancerous Tissues		
Transitional epithelium	3 / 3	Breast		122 / 122
Kidney	13 / 13	Uterus:	Endometrium	10 / 10
Fallopian tube	2 / 2		Cervix, squamous cells	2 / 2
Uterus	5 / 5	Ovary	Mucinous	4 / 4
Prostate	6 / 9		Serous	2 / 2
Epididymis	4 / 4	Testis	Malignant teratoma	7 / 7
Bronchus	13 / 13	Kidney	Clear cell	15 / 15
Sebaceous and sweat glands	6 / 6	Lung	Bronchiolo-alveolar	6 / 6
Salivary glands	3 / 4		Adenosquamous	2 / 2
Stomach	6 / 8	Stomach	Adenocarcinoma	8 / 9
Breast	23 / 23	Colon	Adenocarcinoma	24 / 36

(from Zenklusen et al. 1988)

Table 1. b-12 Reaction Pattern on Human Tissues.