

## Product datasheet for **BM4042**

### CD46 Mouse Monoclonal Antibody [Clone ID: 13/42]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	13/42
Applications:	FC, IHC, IP, WB
Recommended Dilution:	<p><b>Flow Cytometry:</b> 5-10 µg/ml of neat antibody to label 1x10<sup>6</sup> cells.</p> <p><b>Immunoprecipitation:</b> 5 µg/200 µl extract from 2x10<sup>6</sup> cells.</p> <p><b>Immunohistochemistry on Frozen Sections:</b> 1-2 µg/ml (1/200-1/400).</p> <p><b>Immunohistochemistry on Paraffin Sections:</b> 8 µg/ml (1/50).</p> <p>Proteinase K pretreatment for antigen retrieval is recommended.</p> <p><b>Suggested Positive Control:</b> Human tonsil.</p> <p>Has been described to work in <b>FACS</b>, <b>Western Blots</b> and <b>Functional Studies</b>.</p>
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	<p>Human U-251 cells.</p> <p><b>Epitope:</b> Localized in the first two short consensus repeats.</p>
Specificity:	<p>The monoclonal antibody 13/42 recognizes Human CD46.</p> <p>The recognized epitope is localized on the first two short consensus repeats.</p> <p>Cross-reacts with African green monkey.</p> <p><b>Antigen Distribution:</b> The antigen is widely expressed on Human cells except erythrocytes. It can also be found as a soluble protein in serum and saliva. Many Human cell lines express CD 46 e.g. U937, HeLa.</p>
Formulation:	<p>PBS, pH 7.2 with 10 mg/ml BSA as a stabilizer and 0.09% Sodium Azide as a preservative</p> <p>State: Purified</p> <p>State: Lyophilized purified IgG fraction</p>
Reconstitution Method:	Restore with 0.5 ml distilled water.
Concentration:	0.4 mg/ml (after reconstitution)
Purification:	Affinity Chromatography
Conjugation:	Unconjugated



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<b>Storage:</b>	Prior to reconstitution store at 2-8°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	CD46 molecule
<b>Database Link:</b>	<a href="#">Entrez Gene 4179 Human P15529</a>
<b>Background:</b>	CD46 also known as Membrane Cofactor Protein (MCP), acts as a cofactor for factor I, a serine protease which is involved in the degradative cleavage of C3b and C4b. Structurally as well as functionally, it is a member of the regulator of complement activation proteins. CD46 is composed of an amino terminus of four short consensus repeating units (SCR), a Ser/Thr (ST)-rich domain, 13 amino acid residues with unknown function, a transmembrane region, and a cytoplasmic tail. There are many isoforms on human cells and in body fluids which are distinguishable by SDS-PAGE. Their heterogeneity stems from varying amounts of O-linked sugars secondary to alternative splicing of mRNA coding the ST-rich region.
<b>Synonyms:</b>	TLX, MIC10

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

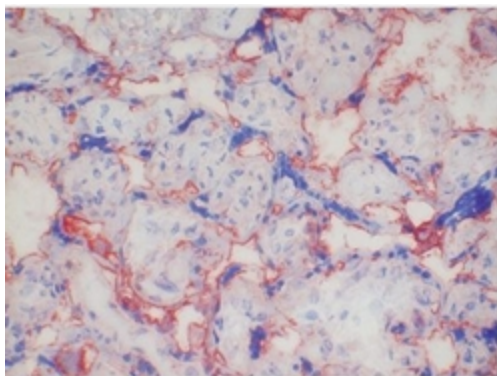
The whole procedure is performed at room temperature.

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.

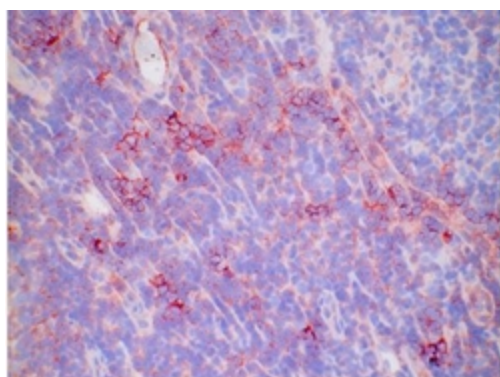
**Protocol with formalin-fixed, paraffin-embedded sections:**

The whole procedure is performed at room temperature.

1. Deparaffinize and rehydrate tissue section.
2. Incubate the tissue section with proteinase K for 7min.
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:**

Staining of Human Tonsil Frozen Section using CD46 Antibody (Clone 13/42)



Staining of Human Placenta Frozen Section using CD46 Antibody (Clone 13/42)

Tissue	Cells	Expression
Salivary gland	Ductal epithelium	++++
	Acinar cells	++++
Pancreas	Exocrine ducts	++++
	Islet of Langerhans	+++
	Acinar cells	++++
Kidney	Glomerular capillaries	+++
	Glomerular epithelial cells	+++
	Proximal & distal tubules	+++
	Collecting ducts	+++
Liver	Hepatocytes	++ / +++
	Bile duct	++++
	Hepatic artery endothelium	++
	Portal vein endothelium	+
Lung	Bronchi/bronchioili	++
	Alveoli	++
Skin	Distal epithelium	+ / -
	Basal epithelium	+
	Dermal glandular epithelium	
Gastrointestinal tract	Mucosal epithelium	+++
	Submucosal vasc. endothel.	++
	Muscularis myofibres	+
	Adventitia	+ / -
Endocrine glands	Adrenal epithelium	++ / +++
	Thyroid epithelium	++
Spleen	Lymphocytes	+
	Vascular endothelium	++
Brain	Neurons	+ / ++
	Vascular endothelium	++
Muscle	Visceral; cardiac; skeletal	+

Table 1. Tissue distribution of CD46 (Johnstone et al., modified)