Bio-Optica
Improving Pathology

BIOCARE MEDICAL

Key Antibodies For

Multiple Myeloma

Myeloma cancers are the fourteenth most diagnosed cancer in the United States, with about 1.6% of new cancer cases classified as myeloma and contributing toward 1.9% of cancer deaths yearly. As of 2012, there were approximately 90,000 people living with myeloma in the United States. Those diagnosed with myeloma have a 5 year survival rate of only 46.6%. Over the last 10 years, the rate of new kidney cancer cases has risen 0.8% per year, while the death rate has fallen 0.9% per year. Biocare Medical is proud to offer key myeloma antibodies that may aid in the identification of their respective proteins by IHC in FFPE tissues.

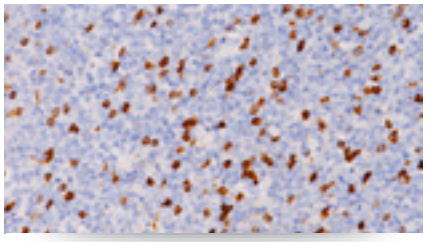
SEER Cancer Statistics Factsheets: Myeloma. National Cancer Institute. Bethesda, MD,http://seer.cancer.gov/statfacts/html/mulmy.html

Key Antibodies for Multiple Myeloma

Product Name	Source	Clone	Catalog Number
Kappa Light Chain [L1C1]	Mouse	L1C1	ACI 3149; API 3149
Lambda Light Chain [N10/2]	Mouse	N10/2	ACI 3063; API 3063
Kappa (M) + Lambda (P)	Mouse, Rabbit	L1C1 + Polyclonal	API 3159DS
Bcl-2	Mouse	100/D5	CM 003; PM 003
CD56	Mouse	BC56C04	CM 164; PM 164
CD79a	Mouse	HM47/A9	CM 067; PM 067
CD138	Mouse	B-A38	CM 167; PM 167
Cyclin D1	Mouse	EP12	CME 432; PME 432
MUM1	Rabbit	BC5	CRM 352; PRM 352

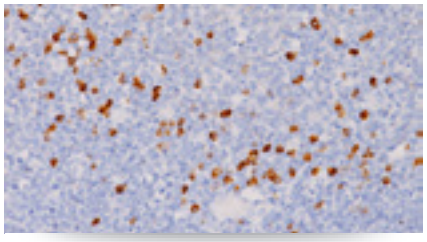
www.biocare.net/multiple-myeloma

Key Antibodies for Multiple Myeloma



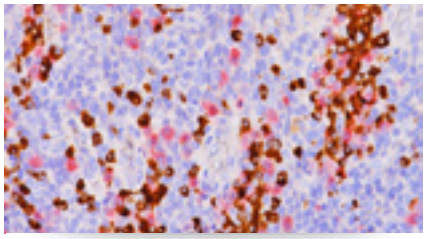
Kappa Light Chain [L1C1]

This antibody recognizes kappa light chains of human immunoglobulins, which may be useful in the identification of plasmacytoma and multiple myeloma. The presence of clear cut light chain restriction with a kappa/lambda ratio more than 10:1 is consistent with a malignant proliferation.



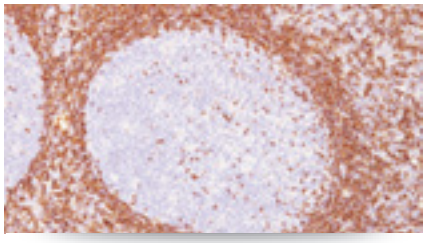
Lambda Light Chain [N10/2]

This antibody recognizes lambda light chains of human immunoglobulins, which may be useful in the identification of plasmacytoma and multiple myeloma. The most common feature of these malignancies is the restricted expression of a single light chain class.



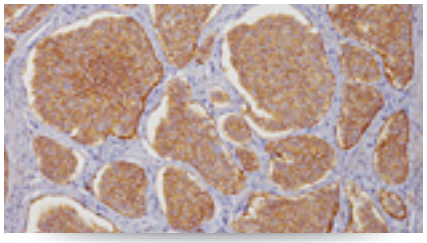
Kappa (M) + Lambda (P)

The antibody cocktail recognizes both Kappa and Lambda light chains. This double stain allows the investigator to simultaneously see both Kappa (M) (brown) and Lambda (P) (red) on the same tissue section, thus allowing the end-user a more accurate and easier assessment of both stains.



Bcl-2

The 100/D5 clone is highly specific to Bcl-2 antibody (alpha) and shows no cross-reactivity with Bcl-x or Bax protein. Bcl-2 (b-cell lymphoma #2) expression has been shown to inhibit apoptosis. Various B- and T-cell lymphoproliferative diseases and some diffuse large B-cell lymphomas are Bcl-2 positive.

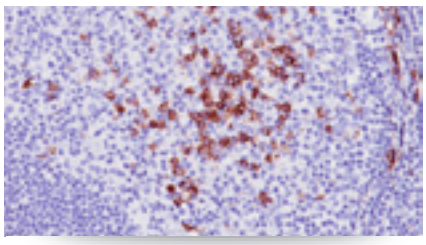


CD56

CD56 (neural cell adhesion molecule, a natural killer cell marker) is expressed in a variety of normal and abnormal tissues including skin, small cell carcinoma, neuroblastoma, neurons, astrocytes, Schwann cells, natural killer (NK) cells and a subset of activated T-cell lymphomas.

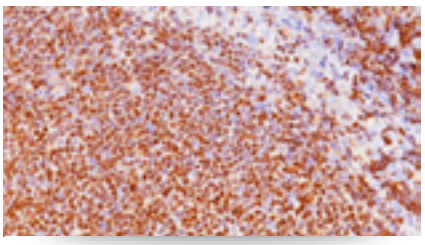
CD79a

CD79a appears at pre-B-cell stage and persisting until the plasma cell stage. Studies have shown that CD79a is found in a majority of acute leukemia of precursor-B-cell-type as well as B-cell neoplasms, B-cell lymphomas and some myelomas. It is not present in myeloid or T-cell lines.



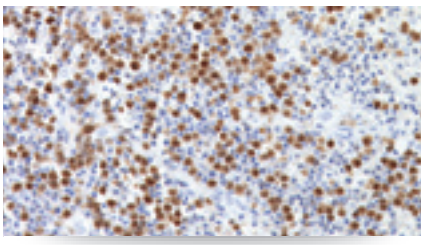
CD138

Expression of CD138/syndecan-1 in human hematopoietic cells is restricted to plasma cells in normal bone marrow. Early B-cell precursors in human bone marrow are CD138 negative. CD138 may aid in distinguishing between viable myeloma cells vs. apoptotic cells.



Cyclin D1

Cyclin D1 (also known as Bcl-1 or PRAD-1) is a regulatory subunit of certain protein kinases thought to advance the G1 phase of the cell cycle. [EP12] shows some positive staining reaction in B-cell chronic lymphocytic leukemia proliferation not seen with other Cyclin D1 clones.



MUM1

Multiple myeloma oncogene-1 (MUM-1) is expressed in plasma cells and a small fraction of B-cells located in the light zone of germinal centers. MUM-1 labels centrocytes and their progeny, plasma cells, activated T-cells and a wide spectrum of hematolymphoid neoplasms derived from these cells.

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