

Spotlight On:

CD123 (6H6)

Blastic plasmacytoid dendritic cell neoplasm (BPDCN) is a highly aggressive malignancy of hematopoietic origin that occurs mostly in middle-aged to elderly men. BPDCN is often characterized by skin and bone marrow involvement. Since its discovery, it has been classified as multiple entities, including *agranular CD4+ natural killer (NK) cell leukemia, blastic NK cell leukemia/lymphoma, and agranular CD4+, CD56+ hematodermic neoplasm or tumor* (<http://www.expertconsultbook.com/expertconsult/ob/book.do?method=display&type=bookPage&decorator=none&eid=4-u1.0-B978-0-7216-0040-6..00050-2&isbn=978-0-7216-0040-6>). While BPDCN is rare, representing less than 1% of cutaneous lymphomas (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3346924/>), it is important to include this malignancy in cutaneous differential diagnoses.

CD123, also known as interleukin-3 receptor alpha chain, is an *in vitro* diagnostic antibody that labels BPDCN. In a panel with antibodies such as CD4, CD56, CD20, CD13, CD3, CD19, and TCL1, CD123 helps to differentiate BPDCN from other malignancies that it mimics, such as NK lymphoma/leukemia, T-cell lymphoma, B-cell lymphoma, and AML. CD123 positivity

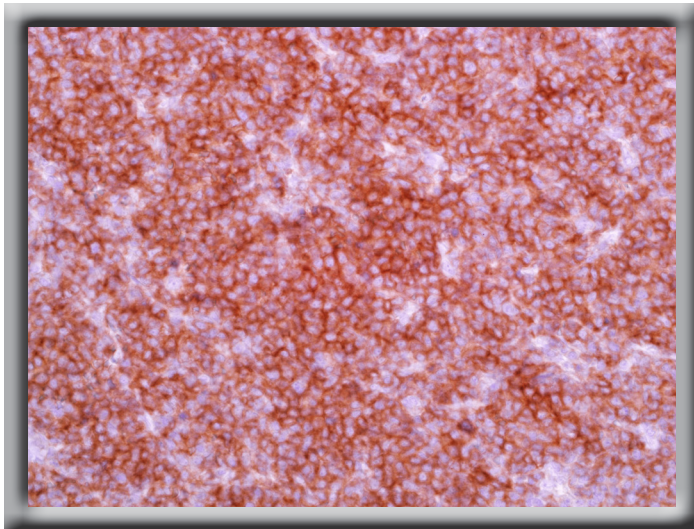
is suggestive of BPDCN, which historically has been interpreted by exclusion.

Benefits of CD123:

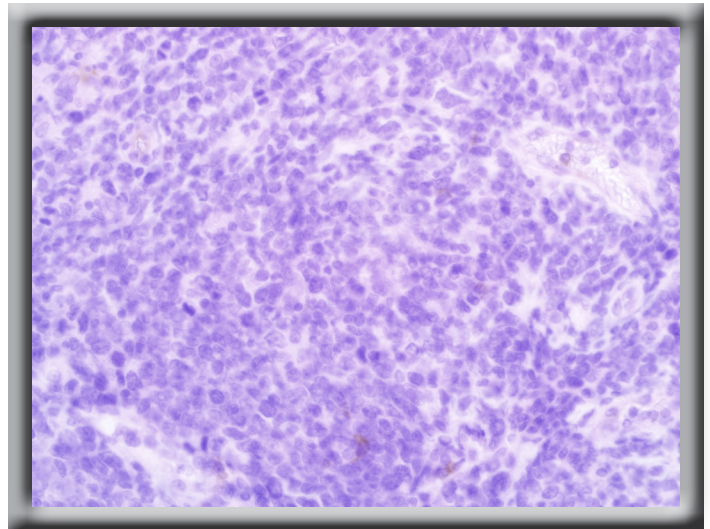
- *In vitro* diagnostic
- Compatible with multiple automated staining platforms
- Aids in distinguishing blastic plasmacytoid dendritic cell neoplasms from mimics
- Utilized in immunohistochemical panels with CD4, CD56, CD20, CD13, CD3, and TCL1

Ordering Information:

0.1 ml concentrate	198M-14
0.5 ml concentrate	198M-15
1 ml concentrate	198M-16
1 ml predilute	198M-17
7 ml predilute	198M-18
5 positive control slides	198S



CD123 is strongly expressed in the blastic plasmacytoid dendritic cell neoplasm.



Diffuse large B-cell lymphoma is negative for CD123.