Annexin A1 (MRQ-3)

For In Vitro Diagnostic Use (IVD)
English: Instructions For Use

Presentation
Anti-Annexin A1 is a mouse monoclonal antibody from supernatant diluted in tris buffered saline, pH 7.3-7.7, with protein base, and preserved with sodium azide.

Applications
ANXA1 is strongly expressed on the cell membrane and occasionally in the cytoplasm of tumor cells in 97% of samples from patients with hairy cell leukemia. By contrast, B-cell lymphomas other than hairy cell leukemia, including typical splenic lymphoma with villous lymphocytes and patients with variant hairy cell leukemia—as defined by current morphologic, phenotypic, and clinical criteria—are ANXA1-negative. In a study by Falini et al. ANXA1 immunodetection was 100% sensitive and specific for hairy cell leukemia. Normal B cells from different lympho-hemopoietic tissues were ANXA1-negative. In this study the expression of ANXA1 in myeloid cells, macrophages, or T-cell subset served as positive control. These findings validated the results of gene expression profiling in hairy cell leukemia at the protein level by showing that ANXA1 is consistently expressed in this type of leukemic disease, but not in other B-cell lymphomas. Of note is that negativity for ANXA1 was also present in patients with splenic lymphoma with villous lymphocytes, variant hairy cell leukemia, prolymphocytic leukemia, marginal zone and lymphoplasmacytoid lymphomas. Thus, ANXA1 is a molecule specific to hairy cell leukemia that can be used to differentiate this disease from other B-cell lymphomas. Wang et al. showed that high ANXA1 expression is frequent in esophageal and esophagogastric junction adenocarcinomas, is associated with more advanced pathologic T stage and the presence of distant metastasis, and is an independent prognostic factor for patient survival.

Associated products: TRAcP, T-bet.

Reactivity	Paraffin, frozen
Control	Hairy cell leukemia
Visualization	Cytoplasmic, membranous
Stability	Up to 36 months; store at 2-8°C
Isotype	IgG_1

The immunoglobulin concentration of the reagent appears on the product label.

Antibody color does not affect performance

Description	Cat. No.	Dilution/Comments
0.1 ml, concentrate	221M-14	1:100 - 1:500*
0.5 ml, concentrate	221M-15	1:100 - 1:500*
1 ml, concentrate	221M-16	1:100 - 1:500*
1 ml, prediluted	221M-17	Ready to use
7 ml, prediluted	221M-18	Ready to use
Positive control slides	221S	5 slides/pack

P prediluted C concentrate

Preparation and Pretreatment
1. Cut 3-4 µm section of formalin-fixed paraffin-embedded tissue and place on positively charged slides; dry overnight at 58°C.
2. Deparaffinize, rehydrate, and epitope retrieve; the preferred method is the use of Heat Induced Epitope Retrieval (HIER) techniques using Cell Marque's Trilogy™ in conjunction with a pressure cooker. The preferred method allows for simultaneous deparaffinization, rehydration, and epitope retrieval. Upon completion, rinse with 5 changes of distilled or deionized water.
3. If using HRP detection system, place slides in peroxide block for 10 minutes; rinse. If using AP detection system, omit this step.

Recommended Protocol for Staining at Room Temperature Using CytoScan™ BSA Detection System
1. Apply the antibody and incubate for 30 - 60 minutes; rinse.
2. Apply the link and incubate for 10 minutes; rinse.
3. Apply the label and incubate for 10 minutes; rinse.
4. Apply ample amount of chromogen and incubate for 1 - 10 minutes; rinse.
5. Dehydrate and coverslip.

Recommended Protocol for Staining at Room Temperature Using PolyScan™ Polymer Detection System
1. Apply the antibody and incubate for 30 - 60 minutes; rinse.
2. Apply the PolyScan™ Polymer Rabbit/Mouse Detection System for 30 minutes; rinse.
3. Apply ample amount of chromogen and incubate for 1 - 10 minutes; rinse.
4. Dehydrate and coverslip.

References
1. Falini B, Tiacci E, Liso A, Basso K, Sabattini E, Pacini R, Foa R, Pulsoni A, Dalla Favera R, Pileri S. Simple diagnostic assay for hairy cell leukaemia by immunocytochemical detection of annexin A1 (ANXA1). Lancet. 2004 Jun 5;363(9424):1869-70. Erratum in: Lancet. 2004 Jun 26;363(9427):2194.
2. Wang KL, Wu TT, Resetkova E, Wang H, Correa AM, Hofstetter WL, Swisher SG, Ajani JA, Rashid A, Hamilton SR, Albarracin CT. Expression of annexin A1 in esophageal and esophagogastric junction adenocarcinomas: association with poor outcome. Clin Cancer Res. 2006 Aug 1;12(15):4598-604.
3. Xia SH, Hu LP, Hu H, Ying WT, Xu X, Cai Y, Han YL, Chen BS, Wei F, Qian XH, Cai YY, Shen Y, Wu M, Wang MR. Three isoforms of annexin I are preferentially expressed in normal esophageal epithelia but down-regulated in esophageal squamous cell carcinomas. Oncogene. 2002 Sep 26;21(43):6641-8.
4. Dreier R, Schmid KW, Gerke V, Riehemann K. Differential expression of annexins I, II and IV in human tissues: an immunohistochemical study. Histochem Cell Biol. 1998 Aug;110(2):137-48.

*The dilutions set forth above are estimates; actual results may differ because of variability in methods and protocols. Validation of antibody performance/protocol is the responsibility of the end user.