Anti-CD138 / DIA-SY1-OD
Mouse monoclonal plasma cell marker
Clone JASY1

Product Information

Catalog No.:	**DIA-SY1-OD**
Clone:	JASY1
Isotype	Mouse IgG1/k
Quantity	100µl
Specificity:	CD138 (Syndecan-1)
Physical State:	Liquid
Species Reactivity:	Human
Positive Control:	Tonsil
Visualization:	Membraneous

Presentation:	Purified antibody in Tris pH 7.3-7.7 with 1% BSA, <0.1% NaN3
Applications:	Immunohistochemistry (IHC), standard formalin-fixed paraffin sections
Dilutions:	1:100 - 1:200 IHC-P

(General recommendation, validation of antibody performance/protocol is the responsibility of the end user. Positive/negative controls should be run simultaneously with samples)

Background

Mouse monoclonal anti-CD138 antibody clone JASY1 is suitable for the immunohistological detection of CD138 in routine-fixed paraffin embedded tissue sections.

Cluster of differentiation 138 (CD138), also known as Syndecan-1, is a transmembrane glycoprotein, (heparin sulphate proteoglycan) expressed on the surface of plasma cells within the hematopoietic system and on the surface of mature epithelial cells. CD138 is composed of a single chain transmembrane core protein (30,5 KDa, comprising a short cytoplasmic domain, a transmembrane domain, and a long extracellular domain) and five covalently attached glycosaminoglycan.

In diagnostic surgical pathology, antibodies against CD138 are commonly used to identify and quantitate plasma cells. Syndecan-1 (CD138) is a cell surface protein with relevance for cell-cell and cell-matrix interaction. In normal tissues, CD138 is expressed on plasma cells but also in various epithelial cell types. CD138 is also expressed in various cancers. In several tumor types CD138 expression levels were described to be prognostically relevant. CD138 expression in cancer is of potential clinical interest. Antibody-based drugs targeting CD138 in plasmocytomas are being evaluated in clinical trials. In preclinical studies, anti-CD138 antibodies were also effective against triple negative breast cancer and melanoma cells.

Instructions for Use

Immunohistochemical staining of standard formalin-fixed paraffin sections

Deparaffinize and rehydrate according to standard procedures. Heat induced epitope retrieval (HIER) is required (pH 9-10 for 10-30 minutes). For immunohistochemical detection different techniques can be used: indirect immunoenzyme labeling with a secondary an-tibody conjugate, biotin/(strept)avidin-based detection, soluble enzyme immune complex or polymer-based detection. The antibody can be adapted for use on automated staining instruments.

Intented use / regulatory status

Europe: For in Vitro Diagnostic Use / All other countries: For Research Use only

Storage and Stability

Store at 2-8°C. Do not freeze. The antibody is stable until the date indicated on the label, when stored properly.

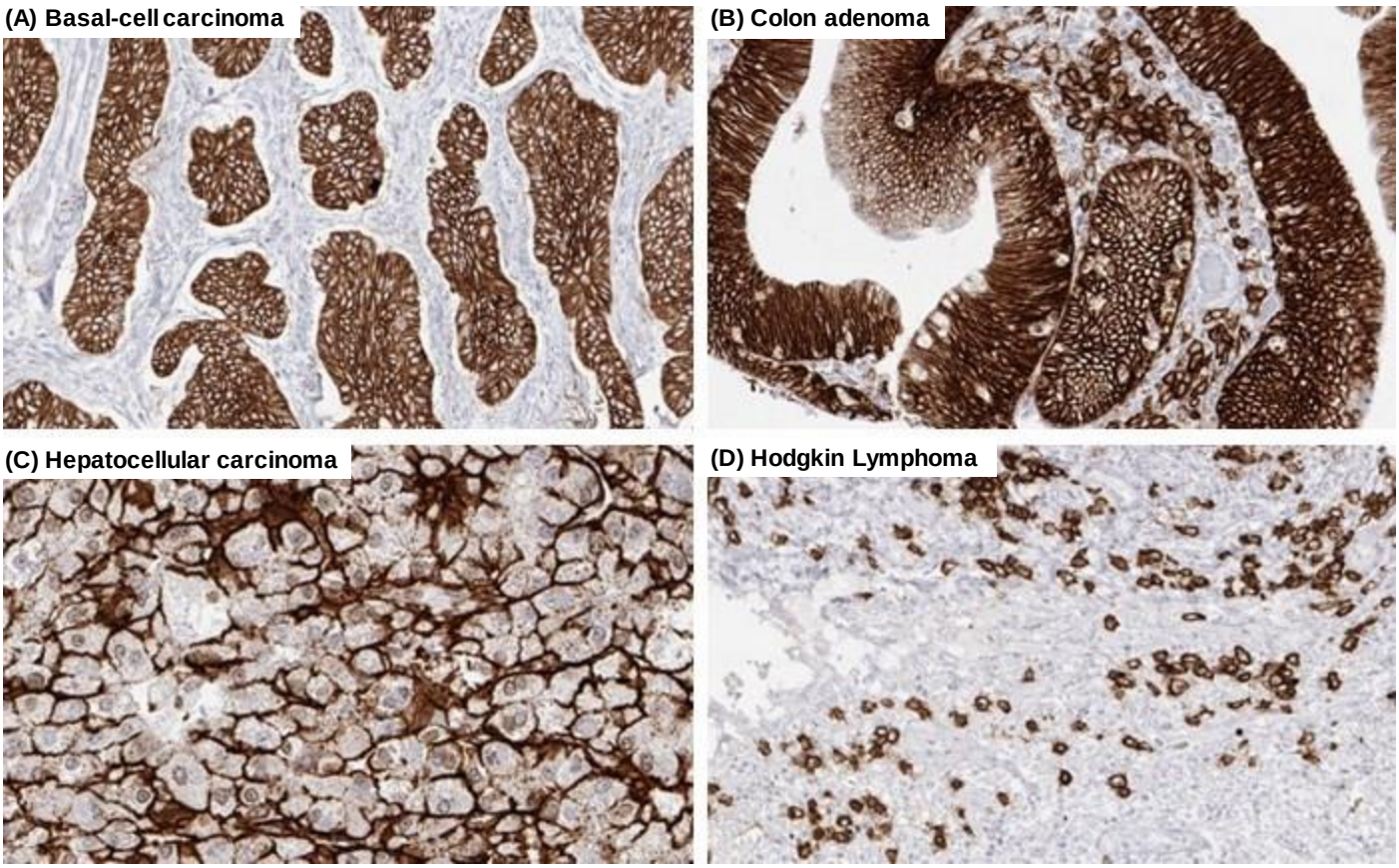
Safety Notes

The material contains <1% sodium azide as preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material. Avoid skin and eye contact, inhalation and ingestion.

Figures

Immunohistochemistry of human CD138 in routine formalin-fixed paraffin-embedded tissue samples

A: Basal-cell carcinoma with strong membranous CD138 staining.
B: Colon adenoma with intense CD138 immunostaining. Numerous CD138 positive plasma cells are located in the stroma.
C: Hepatocellular carcinoma with strong membraneous CD138 immunostaining.
D: Hodgkin lymphoma showing strong CD138 immunostaining of plasma cells.



Specific references for clone JASY1

1. Kind, S. et al. (2019) Prevalence of Syndecan-1 (CD138) Expression in different kinds of human tumors and normal tissues. Disease Markers, Volume 2019, Article ID 4928315
2. Kind, S. et al. (2019) A shift from membranous and stromal syndecan-1 (CD138) expression to cytoplasmic CD138 expression is associated with poor prognosis in breast cancer. Mol. Carcinogenesis, 58(12):2306-2315.

General references

1. Carbone A, et al. (1998) Differential expression of BCL-6, CD138/syndecan-1, and Epstein-Barr virus-encoded latent membrane protein-1 identifies distinct histogenetic subsets of acquired immunodeficiency syndrome-related non-Hodgkin's lymphomas. Blood 91: 747-755.
2. Anttonen A et al. (1999) Syndecan-1 expression has prognostic significance in head and neck carcinoma. Br J Cancer. 79(3-4): 558-564.
3. Chilosi M et al. (1999) CD138/syndecan-1: a useful immunohistochemical marker of normal and neoplastic plasma cells on routine trephine bone marrow biopsies. Mod Pathol. 12: 1101-1106.
4. Sebestyén A et al. (1999) Syndecan-1 (CD138) expression in human non-Hodgkin lymphomas. Br J Haematol. 104: 412-419
5. Bayer-Garner IB et al. (2001) Syndecan-1 (CD138) immunoreactivity in bone marrow biopsies of multiple myeloma: shed syndecan-1 accumulates in fibrotic regions. Mod Pathol. 14: 1052-1058.
6. O'Connell FP et al. (2004) CD138 (syndecan-1), a plasma cell marker immunohistochemical profile in hematopoietic and nonhematopoietic neoplasms. Am J Clin Pathol. 121: 254-63.
7. Colomo L et al. (2004) Diffuse large B-cell lymphomas with plasmablastic differentiation represent a heterogeneous group of disease entities. Am J Surg Pathol. 28: 736-747