G8.8 Monoclonal Antibody for Murine EpCAM (CD326) Detection

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Biomaterial – Antibody

Biomaterial Description

The G8.8 monoclonal antibody specifically binds to CD326, also known as EpCAM (Epithelial Cell Adhesion Molecule), a transmembrane glycoprotein expressed on epithelial cells. In the murine thymus, G8.8 identifies a ~38–42 kDa cell surface glycoprotein selectively expressed by subcapsular and medullary epithelial cells, with no reactivity in cortical regions. The antibody has been validated for use in flow cytometry, immunohistochemistry, and immunoprecipitation, and shows cross-reactivity with epithelial cells in the gut, skin, and kidney, but not with liver parenchyma, spleen, or lymph nodes.

EpCAM (CD326) is involved in calcium-independent homophilic cell-cell adhesion, and plays roles in cell proliferation, differentiation, and tissue morphogenesis. It is widely used as a marker for epithelial cells and is overexpressed in many human carcinomas, making it a target for tumor diagnostics and therapeutics.

Applications

-Identification of EpCAM-expressing epithelial cells in murine tissues

-Mapping thymic epithelial compartments during development

-Flow cytometric analysis of epithelial cell populations

-Immunohistochemical visualization of epithelial heterogeneity

-Biochemical characterization of EpCAM-related glycoproteins

-Comparative studies of epithelial markers across organs

-Support for tumor biology and epithelial lineage tracing

Advantages

-High specificity for EpCAM/CD326 in murine epithelial cells

-Validated across multiple platforms including flow cytometry and immunoelectron microscopy

-Selective labeling of subcapsular and medullary thymic epithelium

-Cross-tissue reactivity with epithelial cells in gut, skin, and kidney

-Non-reactive with non-epithelial tissues, enabling clean compartmental analysis

-Relevant to human EpCAM research, including cancer diagnostics and therapeutics

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References

1. Farr, A., Nelson, A., Truex, J., Hosier, S.(1991) , https://journals.sagepub.com/doi/10.1177/39.5.2016514, https://journals.sagepub.com/home/JHC, 39, 645-653