ExCam rabbit monoclonal antibody: Validation and Performance

Antibodies Overview

ExCam rabbit monoclonal antibodies are highly specific and reproducible tools widely used in cancer and stem cell research. They offer enhanced sensitivity and reduced background staining, making them ideal for applications such as immunohistochemistry, Western blotting, and detecting circulating tumor cells.

Potency in Action: EC50 Data

The EC50 data, signifying the concentration at which an antibody attains 50% maximum binding, holds significant importance within immunoassays. This measure provides a direct glimpse into the antibody's strength, sensitivity, and binding affinity—key factors for optimizing assays. With our antibody displaying a lower EC50 value, denoting elevated sensitivity and affinity, it exhibited robust binding efficacy even at a minimal concentration. This data aids in refining assay conditions, ensuring precise detection even in scenarios involving low-concentration analytes. By steering the choice of optimal antibody concentration and enhancing sensitivity, the EC50 data bolsters the accuracy and efficiency of our immunoassay, reinforcing its trustworthiness in practical applications.

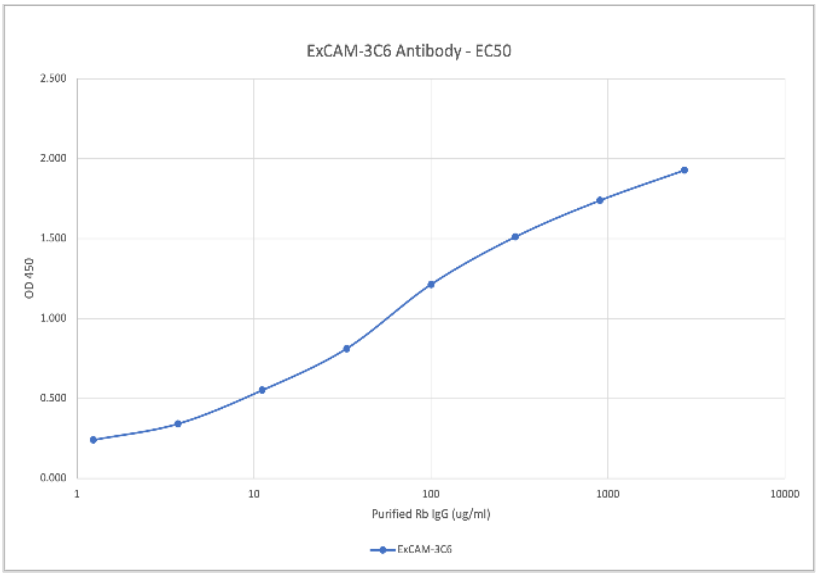

Figure A: EC50 assay of ExCam rabbit monoclonal antibodies. HRP conjugated goat anti-rabbit IgG antibody used for detection at 1:10,000. Data was modeled and analyzed with GraphPad-Prism.

Rigorous Quality Control ISO 17025:2017

We make sure our IVD grade antibodies meet the highest standards, and our ISO-controlled production process plays a key role. At every step, from making the antibodies to purifying them, we rigorously test to ensure they are consistent, reliable, and perform well. Following ISO standards means we have set procedures in place that help us maintain consistent quality, making sure every batch is just as good as the last. Our commitment to this process shows how dedicated we are to providing you with antibodies you can trust for your immunoassay need.

EpCam: A Crucial Biomarker in Cancer Diagnosis and Treatment Monitoring

EpCam (Epithelial Cell Adhesion Molecule) plays a significant role in diagnostics, particularly in cancer detection and management. Its importance lies in several key areas:

1. **Cancer Biomarker:** EpCam is frequently overexpressed in a wide range of epithelial cancers, including colon, breast, prostate, and ovarian cancers. This overexpression makes it an excellent biomarker for identifying malignant cells, aiding in early cancer detection and diagnosis.

2. **Immunohistochemistry (IHC):** EpCam is extensively used in IHC to stain tissue samples, allowing pathologists to visually confirm the presence and distribution of cancerous cells in biopsy specimens. This is crucial for accurate tumor characterization and grading.

3. **Circulating Tumor Cells (CTCs):** EpCam is used in the detection of CTCs in blood samples. The presence of CTCs serves as a prognostic indicator and helps in monitoring the progression of cancer and the effectiveness of treatments, providing a less invasive method for tracking disease status.

4. **Prognosis and Treatment Monitoring:** The level of EpCam expression can provide insights into the aggressiveness of the tumor and potential outcomes. It helps in stratifying patients for appropriate therapeutic strategies and monitoring response to treatments.

Overall, EpCam's high specificity and expression patterns in epithelial cancers make it a pivotal tool in enhancing the accuracy of cancer diagnostics and improving patient management.

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