Monoclonal Antibody to Human MCA
Mucin-Like Carcinoma Antigen, Marker For Mucin Producing Cells

Monoclonal antibody b-12 is useful for identifying mucin-like carcinoma antigen (MCA) produced by various tumours and certain healthy glandular cells. In combination with other markers for inflammation staging or investigating neo-vascularization processes, b-12 is a valuable tool for studying tumour growth or regression. MCA is a 350kDa glycoprotein with the typical biochemical characteristics of mucin-like glycoproteins (sialomucins) which protect surfaces. Antibody b-12 binds to the protein backbone of MCA, not to the large number of carbohydrate side chains.

Product Number: T-1301 (Lot 04PO0112)
Clone: b-12
Host species, isotype: Mouse IgG1
Quantity: 50μg
Format: Affinity purified, lyophilized

Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.1mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 2mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% sodium azide as a preservative.

Stability: Original vial: 1 year at 4° - 8°C
Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.

Applications: Tested for immunohistochemistry (IHC).

Approximate working dilution for IHC:
Frozen sections: 0.5μg/ml (1:200)
Paraffin sections: 4μg/ml (1:25); Proteinase K pretreatment for antigen retrieval recommended.

Optimal dilutions should be determined by the end user.
Suggested positive control: Human uterus.

Please see www.dianova.de for protocols and general information.

Immunogen: Breast carcinoma cell lines.
Antigen, epitope: MCA consists of a polymorphic family of glycoproteins. The b-12 related antigenic epitope is located in the more constant region of MCA.
Antigen distribution: In contrast to MCA producing tumours, the b-12 related antigen is only located at the MCA producing sites such as glandular cell surfaces or glandular tubuli. In MCA producing tumours, where cells become disorganized, the b-12 antigen is secreted into stromal tissue and blood vessels.

b-12 Reaction Pattern on Human Tissues:

<table>
<thead>
<tr>
<th>Healthy Tissues</th>
<th>Cancerous Tissues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitional epithelium</td>
<td>Breast</td>
</tr>
<tr>
<td>Kidney</td>
<td>Uterus: Endometrium</td>
</tr>
<tr>
<td>Fallopian tube</td>
<td>Cervix, squamous cells</td>
</tr>
<tr>
<td>Uterus</td>
<td>Ovary: Mucinous</td>
</tr>
<tr>
<td>Prostate</td>
<td>Serous</td>
</tr>
<tr>
<td>Epididymis</td>
<td>Testis: Malignant teratoma</td>
</tr>
<tr>
<td>Bronchus</td>
<td>Kidney: Clear cell</td>
</tr>
<tr>
<td>Sebaceous and sweat glands</td>
<td>Lung: Bronchiolo-alveolar</td>
</tr>
<tr>
<td>Salivary glands</td>
<td>Stomach: Adenosquamous</td>
</tr>
<tr>
<td>Stomach</td>
<td>Stomach: Adenocarcinoma</td>
</tr>
<tr>
<td>Breast</td>
<td>Colon: Adenocarcinoma</td>
</tr>
</tbody>
</table>

(from Zenklusen et al. 1988)

Specificity: Human: MCA producing cells.

Other species: not tested.

Selected references


Zenklusen, H.R. et al.: The immunohistochemical reactivity of a new anti-epithelial antibody (mAb b-12) against breast carcinoma and other normal and neoplastic human tissues. Virchows Arch A Pathol Anat 413: 3 (1988)


For in vitro research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.

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