Datasheet: MCA2543

**Product Details**

**Description:** MOUSE ANTI HUMAN PODOPLANIN

**Specificity:** PODOPLANIN

**Other names:** AGGRUS

**Format:** Concentrate

**Product Type:** Monoclonal Antibody

**Clone:** D2-40

**Isotype:** IgG1

**Quantity:** 1 ml

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

<table>
<thead>
<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunohistology - Frozen</td>
<td></td>
<td></td>
<td></td>
<td>1/10 - 1/40</td>
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<tr>
<td>Immunohistology - Paraffin</td>
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<td>1/10 - 1/40</td>
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<tr>
<td>Western Blotting</td>
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<tr>
<td>Immunofluorescence</td>
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Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

**Target Species**

Human

**Product Form**

Purified IgG - liquid

**Buffer Solution**

Phosphate buffered saline

**Preservative Stabilisers**

0.1% Sodium Azide (NaN₃)

1% Bovine Serum Albumin

**Immunogen**

Resected tissue from dysgeminoma of the ovary

**External Database Links**

**UniProt:** Q86YL7

**Related reagents**

**Entrez Gene:**

10630 PDPN

**Related reagents**

**Synonyms**

GP36
Specificity

Mouse anti human podoplanin antibody, clone D2-40 was raised against M2A antigen (Marks et al., 1999) and detects podoplanin (Sonne et al., 2006). Podoplanin (PDPN) is an O-glycosylated transmembrane glycoprotein that is selectively expressed by, and is a marker of, lymphatic endothelial cells. In normal tissue the ~38 kDa protein is also present in human lung, placenta, heart, skeletal muscle and kidney podocytes. It is not found in the blood vasculature (Breiteneder-Geleff et al., 1999, Wicki and Christofori, 2007).

The function of podoplanin is yet to be fully elucidated; however, it may be involved in cell migration and/or actin cytoskeleton organization. It is required for normal lung cell proliferation and alveolus formation at birth, and can induce platelet aggregation (Ramirez et al., 2003, Wicki and Christofori, 2007).

Mouse anti human podoplanin antibody, clone D2-40 has been shown to be a sensitive and specific antibody for the detection of lymphatic endothelium in different malignancies, and is of value in the routine evaluation of lymphatic invasion in esophageal cancer (Kozlowski et al., 2011). Clone D2-40 was reported to be an excellent immunohistochemical marker of cutaneous Kaposi’s sarcomas, (Kahn et al., 2002), and may be useful in the differential diagnosis of epithelioid malignant mesothelioma versus adenocarcinoma (Chu et al., 2005).

Immunohistology

This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.

Histology Positive Control Tissue

Human lymph node

References


**Storage**
Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life**
Please see label for expiry date.

**Health And Safety Information**
Material Safety Datasheet documentation #10304 available at:

**Regulatory**
For research purposes only

### Recommended Products

#### Recommended Secondary Antibodies

- Goat Anti Mouse IgG IgA IgM (STAR87...): [Alk. Phos., HRP](#)
- Goat Anti Mouse IgG (STAR77...): [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...): [RPE](#)
- Rabbit Anti Mouse IgG (STAR8...): [DyLight®800](#)
- Rabbit Anti Mouse IgG (STAR13...): [HRP](#)
- Goat Anti Mouse IgG (STAR76...): [RPE](#)
- Goat Anti Mouse IgG (STAR70...): [FITC](#)
- Goat Anti Mouse IgG (H/L) (STAR117...): [Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800](#)
- Goat Anti Mouse IgG (Fc) (STAR120...): [FITC, HRP](#)
- Rabbit Anti Mouse IgG (STAR9...): [FITC](#)
- Human Anti Mouse IgG1 (HCA036...): [HRP](#)

#### Recommended Negative Controls

- MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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North & South America
Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

Worldwide
Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739
Email: antibody_sales_uk@bio-rad.com

Europe
Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
Email: antibody_sales_de@bio-rad.com

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