Overview

**Product name**
Anti-Collagen VI antibody [EPR17077] - C-terminal

**Description**
Rabbit monoclonal [EPR17077] to Collagen VI - C-terminal

**Host species**
Rabbit

**Tested applications**
Suitable for: IHC-P, WB, ICC/IF

**Species reactivity**
Reacts with: Mouse, Rat, Human

**Immunogen**
Recombinant fragment within Human Collagen VI aa 800 to the C-terminus. The exact sequence is proprietary.

Database link: P12109

**Positive control**
WB: Human fetal heart, skeletal muscle and WI-38 (Human lung) whole cell lysate. Mouse heart, kidney and spleen. Rat heart, kidney and spleen. NIH/3T3 whole cell lysate. IHC-P: Human colon and Mouse cardiac muscle tissue. ICC/IF: NIH/3T3 cells.

**General notes**
Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.

This product is a recombinant rabbit monoclonal antibody.

Properties

**Form**
Liquid

**Storage instructions**

**Storage buffer**
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

**Purity**
Protein A purified

**Clonality**
Monoclonal
Clone number: EPR17077
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab199720 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td>1/800. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
<td></td>
</tr>
<tr>
<td>WB</td>
<td>1/1000. Detects a band of approximately 147 kDa (predicted molecular weight: 109 kDa).</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/800.</td>
<td></td>
</tr>
</tbody>
</table>

Target

Function: Collagen VI acts as a cell-binding protein.

Involvement in disease: Defects in COL6A1 are a cause of Bethlem myopathy (BM) [MIM:158810]. BM is a rare autosomal dominant proximal myopathy characterized by early childhood onset (complete penetrance by the age of 5) and joint contractures most frequently affecting the elbows and ankles.
Defects in COL6A1 are a cause of Ullrich congenital muscular dystrophy (UCMD) [MIM:254090]; also known as Ullrich scleratonic muscular dystrophy. UCMD is an autosomal recessive congenital myopathy characterized by muscle weakness and multiple joint contractures, generally noted at birth or early infancy. The clinical course is more severe than in Bethlem myopathy.

Sequence similarities: Belongs to the type VI collagen family.
Contains 3 VWFA domains.

Post-translational modifications: Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.

Cellular localization: Secreted > extracellular space > extracellular matrix.

Images
**Western blot - Anti-Collagen VI antibody [EPR17077] - C-terminal (ab199720)**

**All lanes:** Anti-Collagen VI antibody [EPR17077] - C-terminal (ab199720) at 1/1000 dilution

**Lane 1:** Wild-type HEK-293T whole cell lysate

**Lane 2:** COL6A1 knockout HEK-293T whole cell lysate

**Lane 3:** Human Skeletal Muscle whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 109 kDa

**Lanes 1 - 3:** Merged signal (red and green). Green - ab199720 observed at 109 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab199720 was shown to recognize Collagen VI in wild-type Hek 293T cells as signal was lost at the expected MW in COL6A1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and COL6A1 knockout samples were subjected to SDS-PAGE. Ab199720 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.
**Western blot - Anti-Collagen VI antibody [EPR17077] - C-terminal (ab199720)**

**All lanes**: Anti-Collagen VI antibody [EPR17077] - C-terminal (ab199720) at 1/10000 dilution

**Lane 1**: Human fetal heart
**Lane 2**: Human skeletal muscle
**Lane 3**: WI-38 (Human lung) whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

**Predicted band size**: 109 kDa
**Observed band size**: 147 kDa

*why is the actual band size different from the predicted?*

**Exposure time**: 15 seconds

Blocking/dilution buffer: 5% NFDM/TBST.

The observed MW is consistent with what has been described in the following literature: PMID:16130093 and 21186846
Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Collagen VI with ab199720 at 1/1600 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on stromal cells of Human colon tissue is observed. Counter stained with Hematoxylin. Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051).

**All lanes**: Anti-Collagen VI antibody [EPR17077] - C-terminal (ab199720) at 1/1000 dilution

- **Lane 1**: Mouse heart
- **Lane 2**: Mouse kidney
- **Lane 3**: Mouse spleen
- **Lane 4**: Rat heart
- **Lane 5**: Rat kidney
- **Lane 6**: Rat spleen
- **Lane 7**: NIH/3T3 (mouse embryo) whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size**: 109 kDa

**Observed band size**: 147 kDa

*why is the actual band size different from the predicted?*

**Exposure time**: 10 seconds

Blocking/dilution buffer: 5% NFDM/TBST.

The observed MW is consistent with what has been described in the following literature: PMID:16130093 and 21186846
Immunohistochemical analysis of paraffin-embedded Mouse cardiac muscle tissue labeling Collagen VI with ab199720 at 1/1600 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Extracellular matrix staining on mouse cardiac muscle tissue is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051).

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors