Product name: Anti-Aggrecan antibody

Description: Rabbit polyclonal to Aggrecan

Host species: Rabbit

Specificity: This antibody detects recombinant human Aggrecan by Western Blotting. We have been unable to detect endogenous protein in WB with ab36861.

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

Species reactivity: Reacts with: Rat, Human

Predicted to work with: Dog

Immunogen: Synthetic peptide corresponding to Rat Aggrecan aa 50-150 conjugated to keyhole limpet haemocyanin.

(Peptide available as ab36860)

Positive control: In Western Blot, this antibody gave a positive signal using Aggrecan G1-IGD-G2 Domains recombinant protein. It also gave a positive result in FFPE human and rat liver sections.

Form: Liquid

Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer: pH: 7.40
Preservative: 0.02% Sodium azide
Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity: Immunogen affinity purified

Clonality: Polyclonal

Isotype: IgG
Aggrecan is a member of a family of large, aggregating proteoglycans (also including versican, brevican and neurocan) which is found in articular cartilage. Aggrecan is composed of three major domains: G1, G2, and G3. Between the G1 and G2 domains there is an interglobulin region (IGD). The IGD region is the major site of cleavage by specific proteases like metalloproteinases (MMPs) and aggrecanase. Aggrecan cleavage has been associated with a number of degenerative diseases including rheumatoid arthritis and osteoarthritis. There is evidence that this family of proteoglycans modulates cell adhesion, migration, and axonal outgrowth in the CNS.

**Cellular localization**

Secreted; extracellular matrix.

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### Applications

Our Abpromise guarantee covers the use of ab36861 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>★★★☆☆☆</td>
<td>Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★☆☆☆</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 110 kDa (predicted molecular weight: 250 kDa). Can be blocked with Rat Aggrecan peptide (ab36860). This application has only been tested on recombinant protein.</td>
</tr>
</tbody>
</table>

### Target

**Relevance**

Aggrecan is a member of a family of large, aggregating proteoglycans (also including versican, brevican and neurocan) which is found in articular cartilage. Aggrecan is composed of three major domains: G1, G2, and G3. Between the G1 and G2 domains there is an interglobulin region (IGD). The IGD region is the major site of cleavage by specific proteases like metalloproteinases (MMPs) and aggrecanase. Aggrecan cleavage has been associated with a number of degenerative diseases including rheumatoid arthritis and osteoarthritis. There is evidence that this family of proteoglycans modulates cell adhesion, migration, and axonal outgrowth in the CNS.

**Cellular localization**

Secreted; extracellular matrix.

### Images

250 kDa  
150 kDa  
100 kDa  
75 kDa  
50 kDa  
37 kDa  
25 kDa  
20 kDa  
15 kDa

Anti-Aggrecan antibody (ab36861) at 1 µg/ml + Aggrecan G1-IGD-G2 recombinant protein

**Secondary**

Goat polyclonal to Rabbit IgG H&L (HRP) at 1/10000 dilution

Performed under reducing conditions.

**Predicted band size:** 250 kDa  
**Observed band size:** 110 kDa

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

This antibody was tested on Human Aggrecan G1-IGD-G2 Domains recombinant protein which migrates at approximately 120 kDa.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Aggrecan antibody (ab36861)

IHC image of Aggrecan staining in rat liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab36861, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

IHC image of Aggrecan staining in human liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab36861, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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