### Overview

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Anti-CD44 antibody [F10-44-2]</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Mouse monoclonal [F10-44-2] to CD44</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Mouse</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IHC-Fr, IP, Flow Cyt, ICC/IF, WB, IHC-P</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>CD44-positive cell preparation.</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>In Flow Cytometry, this antibody gave a positive signal in peripheral blood lymphocytes. In IHC, this antibody gave a positive signal in human kidney carcinoma sections. ICC/IF: A431 cell line.</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td>This antibody clone is manufactured by Abcam.</td>
</tr>
<tr>
<td></td>
<td>If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a> or you can find further information here.</td>
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</tbody>
</table>

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<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Storage instructions</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>pH: 7.40</td>
</tr>
<tr>
<td></td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
<tr>
<td></td>
<td>Constituents: PBS, 6.97% L-Arginine</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>IgG fraction</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>F10-44-2</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG2a</td>
</tr>
</tbody>
</table>

### Applications

Our Abpromise guarantee covers the use of ab6124 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**Function**
Receptor for hyaluronic acid (HA). Mediates cell-cell and cell-matrix interactions through its affinity for HA, and possibly also through its affinity for other ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Adhesion with HA plays an important role in cell migration, tumor growth and progression. Also involved in lymphocyte activation, recirculation and homing, and in hematopoiesis. Altered expression or dysfunction causes numerous pathogenic phenotypes. Great protein heterogeneity due to numerous alternative splicing and post-translational modification events.

**Tissue specificity**
Isoform 10 (epithelial isoform) is expressed by cells of epithelium and highly expressed by carcinomas. Expression is repressed in neuroblastoma cells.

**Sequence similarities**
Contains 1 Link domain.

**Domain**
The lectin-like LINK domain is responsible for hyaluronan binding.

**Post-translational modifications**
Proteolytically cleaved in the extracellular matrix by specific proteinases (possibly MMPs) in several cell lines and tumors.
N-glycosylated.
O-glycosylated; contains more-or-less-sulfated chondroitin sulfate glycans, whose number may affect the accessibility of specific proteinases to their cleavage site(s).
Phosphorylated; activation of PKC results in the dephosphorylation of Ser-706 (constitutive phosphorylation site), and the phosphorylation of Ser-672.

**Cellular localization**
Membrane.

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**Application** | **Abreviews** | **Notes**
---|---|---
IHC-Fr | | Use a concentration of 0.5 - 2 µg/ml.
IP | | Use a concentration of 0.5 - 2 µg/ml.
Flow Cyt | | Use 0.5-1µg for 10^6 cells. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
ICC/IF | | Use a concentration of 5 µg/ml.
WB | | Use at an assay dependent concentration. Predicted molecular weight: 81 kDa.
IHC-P | | Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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**Target**

**Function**
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**Images**
Overlay histogram showing peripheral blood lymphocytes stained with ab6124 (red line). The cells were incubated with the antibody (ab6124, 0.5µg/1x10^6 cells) for 30 min at 4°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H&L) (ab96879) at 1/200 dilution for 30 min at 4°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed gating on peripheral blood lymphocytes.

Immunohistochemical analysis of Human esophageal keratinocytes, staining CD44 with ab6124.

Keratinocytes were cultured in vivo to form an epithelium for 15 days before fixing in formaldehyde and embedding in paraffin. Primary antibody was incubated overnight at 4°C and secondary antibody for 30 minutes at 37°C. Staining was detected using DAB.
ab6124 staining CD44 in A431 cells. The cells were fixed with 100% methanol (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab6142 at 5µg/ml and ab6046 (Rabbit polyclonal to beta Tubulin - Loading Control) used at a 1/1000 dilution overnight at +4°C. The secondary antibodies were ab150117, Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed, (pseudo-colored green) and ab150081, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) preadsorbed, (colored red), both used at a 1/1000 dilution for 1 hour at room temperature. DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43 µM for 1hour at room temperature.

IHC image of CD44 staining in human kidney carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM 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 ab6124, 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.

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

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