Product datasheet

Anti-Angiopoietin 2/ANG2 antibody ab8452

Overview

Product name: Anti-Angiopoietin 2/ANG2 antibody
Description: Rabbit polyclonal to Angiopoietin 2/ANG2
Host species: Rabbit
Tested applications:
- Suitable for: ICC/IF, IHC-Fr, WB
Species reactivity:
- Reacts with: Mouse, Rat, Human
Immunogen: Synthetic peptide corresponding to Mouse Angiopoietin 2/ANG2 aa 21-40 (N terminal).
Sequence:
  CNNFRKSVSTGRQRQYQNGP

(Peptide available as ab9077)

General notes: This product was previously labelled as Angiopoietin 2

Properties

Form: Liquid
Storage instructions:
- Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Storage buffer:
- pH: 7.20
- Preservative: 0.1% Sodium azide
- Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride

Purity: Whole antiserum
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab8452 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
### Function
Can induce tyrosine phosphorylation of TIE2. Binds to TIE2 receptor and counteracts blood vessel maturation/stability mediated by angiopoietin-1. Its function may be context-dependent. In the absence of angiogenic inducers, such as VEGF, ANG2-mediated loosening of cell-matrix contacts may induce endothelial cell apoptosis with consequent vascular regression. In concert with VEGF, it may facilitate endothelial cell migration and proliferation, thus serving as a permissive angiogenic signal.

### Sequence similarities
Contains 1 fibrinogen C-terminal domain.

### Domain
The Fibrinogen C-terminal domain mediates interaction with the TEK/TIE2 receptor.

### Cellular localization
Secreted.

### Targets

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>1/200.</td>
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<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 19553662Use at an assay dependent dilution (PMID 19553662).</td>
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<tr>
<td>WB</td>
<td></td>
<td>1/500. Can be blocked with Mouse Angiopoietin 2/ANG2 peptide (ab9077). There is reaction with serum in the cell supernatants, which results in strong background and makes it difficult to see the angiopoietins in cell supernatants. However when precipitated (using soluble Tie2) the signals are very good and strong.</td>
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### Images

Supematants of mouse angiopoietin-expressing endothelial cells.
Soluble Tie 2 was used to precipitate the angiopoietins to reduce background.

Lane 1 - mock
Lane 2 - mouse angiopoietin-2 (clone 2-9) expressing cells
Lane 3 - mouse angiopoietin-1 (clone 1-15) expressing cells
Lane 4 - mouse angiopoietin-1 (clone 1-8) expressing cells
Lane 5 - wt
ICC/IF image of ab8452 stained PC12 cells. The cells were 100% methanol fixed (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 (ab8452, 1/200 dilution) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunohistochemical analysis of murine brain coronal sections, staining Angiopoietin 2/ANG2 with ab8452 at 1/500 dilution. Sections were taken from control mice (left) or mice subjected to middle cerebral artery occlusion (right).

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