**Product datasheet**

**Anti-VEGF Receptor 1 antibody [Y103] ab32152**

**Overview**

- **Product name**: Anti-VEGF Receptor 1 antibody [Y103]
- **Description**: Rabbit monoclonal [Y103] to VEGF Receptor 1
- **Host species**: Rabbit
- **Specificity**: Based on the antibody’s immunogen sequence, it recognises 151 kDa VEGF receptor 1/Flt1, splice isoforms sFlt1 (77 kDa) and sFlt1-14 (82 kDa), and isoform 4 (61 kDa). The sequence is not present in isoforms 5-8 based on Uniprot ID P17948.
- **Tested applications**
  - Suitable for: WB, IHC-P, IP, IHC-Fr
  - Unsuitable for: Flow Cyt or ICC/IF
- **Species reactivity**: Reacts with: Mouse, Rat, Human, Chinese hamster
- **Immunogen**: Synthetic peptide within Human VEGF Receptor 1 aa 1-100 (N terminal). The exact sequence is proprietary.
  (Peptide available as ab182457)
- **Positive control**: WB: Human and mouse brain tissue; IHC-P: Human gastric carcinoma tissue; IHC-Fr: Mouse brain tissue; IP: Mouse brain lysate.
- **General notes**: This product is a recombinant monoclonal antibody, which offers several advantages including:
  - High batch-to-batch consistency and reproducibility
  - Improved sensitivity and specificity
  - Long-term security of supply
  - Animal-free production
  For more information see here.

- **Form**: Liquid
- **Storage instructions**: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
- **Storage buffer**: pH: 7.20
  - Preservative: 0.01% Sodium azide
  - Constituents: PBS, 50% Glycerol, 0.05% BSA

**Properties**

- **Form**: Liquid
- **Storage instructions**: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
- **Storage buffer**: pH: 7.20
  - Preservative: 0.01% Sodium azide
  - Constituents: PBS, 50% Glycerol, 0.05% BSA
Purity: Protein A purified
Clonality: Monoclonal
Clone number: Y103
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab32152 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>WB</td>
<td>★★★★★</td>
<td>1/1000 - 1/5000. Predicted molecular weight: 151 kDa. Can be blocked with Human VEGF Receptor 1 peptide (ab182457).</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>1/30 - 1/100.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>1/250.</td>
</tr>
</tbody>
</table>

Application notes
Is unsuitable for Flow Cyt or ICC/IF.

Target

Function
Receptor for VEGF, VEGFB and PGF. Has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability. Isoform SFlt1 may have an inhibitory role in angiogenesis.

Tissue specificity
Mostly in normal lung, but also in placenta, liver, kidney, heart and brain tissues. Specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. Isoform sFlt1 is strongly expressed in placenta.

Sequence similarities
Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.
Contains 7 Ig-like C2-type (immunoglobulin-like) domains.
Contains 1 protein kinase domain.

Cellular localization
Secreted and Cell membrane.

Images
**Western blot** - Anti-VEGF Receptor 1 antibody [Y103] (ab32152)

All lanes: Anti-VEGF Receptor 1 antibody [Y103] (ab32152) at 1/1000 dilution

Lane 1: Mouse brain lysates
Lane 2: Human brain lysates

Lysates/proteins at 15 µg per lane.

**Secondary**

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 151 kDa

Observed band size: 180 kDa

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

**Exposure time**: 40 seconds

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.


Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).
VEGF Receptor 1 was immunoprecipitated from 0.35 mg mouse brain lysate 10μg with ab32152 at 1:30 dilution (2μg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab32152 1:1000 dilution (2 μg/ml). VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1:1000 dilution.

Lane 1: Mouse brain lysate 10μg.
Lane 2: ab32152 IP in mouse brain lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab32152 in mouse brain lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 1 second.

Immunohistochemistry (PFA perfusion fixed frozen sections) analysis of mouse brain tissue section (15 days old wild-type mouse embryonic brain, 16 micron) labeling VEGF Receptor 1 with ab32152 at 1/300 dilution.

Tissue was fixed with formaldehyde and permeabilized with Triton X-100. Heat mediated antigen retrieval was performed using 10mM citrate buffer, pH 6. A polyclonal donkey anti-Rabbit IgG (H+L) (Alexa Fluor® 488) secondary antibody was used at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human abdominal aortic aneurysm (AAA) wall tissue sections labeling VEGF Receptor 1 with ab32152 at 1/100 dilution.

Resected aortic tissues were immersed in 10% neutral buffered formalin for at least 24 h for immunohistochemical staining. Tissue sample was embedded in paraffin; 4 μm sections were cut and mounted onto MAS-coated slides. The sections were deparaffinized, dehydrated, and boiled in a pressure cooker in 0.01 M citric acid buffer (pH 6.0) for 20 min. The sections were washed with phosphate-buffered saline and incubated with 3% H₂O₂ in absolute methanol for 5 min to inhibit any endogenous peroxidase activity. Sections were preincubated with 3% normal goat serum for 20 min to minimize nonspecific binding to VEGF Receptor 1, and incubated with ab32152 at 4°C overnight in a moist chamber. The section was washed with phosphate-buffered saline and then
incubated with the appropriate secondary antibody for 30 min at room temperature. Staining was visualized with Vector DAB, and tissue section was then counterstained with hematoxylin.

Anti-VEGF Receptor 1 antibody [Y103] (ab32152) at 1/10000 dilution + mouse brain tissue

**Predicted band size:** 151 kDa

**Observed band size:** 180 kDa

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

**Please note:** All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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