# Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal ab134152

**Product name:** Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal

**Description:** Rabbit monoclonal [UMB1] to Somatostatin Receptor 2 - C-terminal

**Host species:** Rabbit

**Specificity:** The specificity of ab134152 was demonstrated in a Somatostatin Receptor 2-deficient mouse model. Refer to Fischer et al.

**Tested applications**

- Suitable for: IHC-Fr, WB, IP, IHC-P
- Unsuitable for: Flow Cyt or ICC/IF

**Species reactivity**

Reacts with: Mouse, Rat, Human

**Immunogen**

Synthetic peptide within Human Somatostatin Receptor 2 aa 350 to the C-terminus (C terminal). The exact sequence is proprietary.

Database link: P30874-1

(Peptide available as ab171899)

**Positive control**

WB: Human and mouse brain tissue lysate. U937, INS-1 and Somatostatin Receptor 2 transfected HEK-293 cell lysates. IHC-P: Human pancreas and brain tissue.

**General notes**

Abcam recommended secondaries - Goat Anti-Rabbit HRP (ab205718) and Goat Anti-Rabbit Alexa Fluor® 488 (ab150077).

See other anti-rabbit secondary antibodies that can be used with this antibody.

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

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.
Properties

Form
Liquid

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

Storage buffer
pH: 7.40
Preservative: 0.01% Sodium azide
Constituents: PBS, 40% Glycerol, 0.5% BSA

Purity
Protein A purified

Clonality
Monoclonal

Clone number
UMB1

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab134152 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 23630299</td>
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<tr>
<td>WB</td>
<td>1/1000 - 1/10000. Detects a band of approximately 75-80 kDa (predicted molecular weight: 41 kDa). Can be blocked with Somatostatin Receptor 2 peptide (ab171899). This antibody works better in 1% SDS Hot Lysates in WB. For Lysate preparation protocol, please refer to the protocol book in the protocol section and/or here (downloadable copy).</td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>1/10 - 1/100.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
<td></td>
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Application notes
Is unsuitable for Flow Cyt or ICC/IF.

Target

Function
Receptor for somatostatins-14 and -28. This receptor is coupled via pertussis toxin sensitive G proteins to inhibition of adenyl cyclase. In addition it stimulates phosphotyrosine phosphatase and PLC via pertussis toxin insensitive as well as sensitive G proteins. In RIN-5F cells, this receptor inhibits calcium entry by suppressing voltage dependent calcium-channels.

Tissue specificity
Cerebrum and kidney. In lesser amounts in jejunum, colon and liver.

Sequence similarities
Belongs to the G-protein coupled receptor 1 family.

Cellular localization
Cell membrane.

Images
Agonist-induced internalization of sst$_2$ (Somatostatin Receptor 2) and sst$_5$ (Somatostatin Receptor 5) tail-swap mutants

Stably transfected HEK-293 cells were treated with 1 µM SS-14 for 0, 15 or 30 min. Cells were then fixed, stained with the anti-sst2 (UMB-1) (ab134152) or anti-sst5 antibody (UMB-4) (ab109495) and examined by confocal microscopy. Shown are representative images from one of at least three independent experiments. Scale bar, 20 µm.

Cells were fixed with 4% paraformaldehyde and 0.2% picric acid in phosphate buffer (pH 6.9) for 30 min at room temperature and washed several times. Cells were then permeabilized prior to incubation with the respective primary antibodies. Alexa® 488-conjugated secondary antibodies were used.

(After Figure 2A of Lehmann et al)

Immunohistochemical analysis of paraffin embedded human brain tissue labeled with ab134152 at 1/100 dilution.

All lanes: Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal (ab134152) at 1/1000 dilution

Lane 1: U937 (Human histiocytic lymphoma monocyte) whole cell lysates prepared in RIPA lysis method
Lane 2: U937 (Human histiocytic lymphoma monocyte) whole cell lysates prepared in 1% SDS hot lysis method
Lane 3: MCF-7 (Human breast adenocarcinoma epithelial cell) whole cell lysates prepared in RIPA lysis method
Lane 4: MCF-7 (Human breast adenocarcinoma epithelial cell) whole cell lysates prepared in 1% SDS hot lysis method

Immunohistochemistry/ Immunofluorescence - Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal (ab134152)

Lane 5: MDA-MB-231 (Human breast adenocarcinoma epithelial cell) whole cell lysates prepared in RIPA lysis method

Lane 6: MDA-MB-231 (Human breast adenocarcinoma epithelial cell) whole cell lysates prepared in 1% SDS hot lysis method

Lane 7: A549 (Human lung carcinoma epithelial cell) whole cell lysates prepared in RIPA lysis method

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: 41 kDa

Observed band size: 73 kDa

why is the actual band size different from the predicted?

Exposure time: 3 minutes

Blocking and diluting buffer: 5% NFDM/TBST.

This antibody doesn't work in MCF-7 and MDA-MB-231 cells which should be positive (PMID: 16519802). A549 cell is Somatostatin Receptor 2 negative cell line (PMID: 19148511).

Immunohistochemical analysis of paraffin embedded human pancreas tissue labeled with ab134152 at 1/100 dilution.
**Western blot - Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal (ab134152)**

**All lanes**: Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal (ab134152) at 1/1000 dilution

- **Lane 1**: Human brain lysates prepared in RIPA lysis method
- **Lane 2**: Human brain lysates prepared in 1% SDS hot lysis method
- **Lane 3**: Mouse brain lysates prepared in RIPA lysis method
- **Lane 4**: Mouse brain lysates prepared in 1% SDS hot lysis method

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**: 41 kDa

**Observed band size**: 73 kDa *why is the actual band size different from the predicted?*

Blocking and diluting buffer: 5% NFDM/TBST.

**Exposure time**:
- Lane 1 and 2: 1 second.
- Lane 3 and 4: 5 seconds.
Western blot - Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal (ab134152)

All lanes: Anti-Somatostatin Receptor 2 antibody [UMB1] - C-terminal (ab134152) at 1/1000 dilution

Lane 1: U937 (Human histiocytic lymphoma cell line) cell lysates
Lane 2: INS-1 cell lysates
Lane 3: Somatostatin Receptor 2 transfected HEK-293 (Human epithelial cell line from embryonic kidney) cell lysates

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: HRP labeled goat anti-rabbit at 1/2000 dilution

Predicted band size: 41 kDa

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