# Product datasheet

## HRP Anti-Ras antibody [EPR3255] ab199557

**Product name**
HRP Anti-Ras antibody [EPR3255]

**Description**
HRP Rabbit monoclonal [EPR3255] to Ras

**Host species**
Rabbit

**Conjugation**
HRP

**Tested applications**
Suitable for: WB

**Species reactivity**
Reacts with: Human

**Predicted to work with:** Mouse, Rat

**Immunogen**
Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

**Positive control**
WB: HEK293 and SHSY-5Y whole cell lysates.

**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.

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

Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own
labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.</td>
</tr>
</tbody>
</table>
| Storage buffer | pH: 7.40  
Preservative: 0.1% 10% Proclin 300 Solution  
Constituents: 30% Glycerol (glycerin, glycerine), PBS, 1% BSA |
| Purity     | Protein A purified |
| Clonality  | Monoclonal       |
| Clone number | EPR3255         |
| Isotype    | IgG              |

**Applications**

Our **Abpromise guarantee** covers the use of ab199557 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>1/5000. Detects a band of approximately 22 kDa (predicted molecular weight: 22 kDa).</td>
<td></td>
</tr>
</tbody>
</table>

**Target**

**Function**

Ras proteins bind GDP/GTP and possess intrinsic GTPase activity.

**Involvement in disease**

Defects in HRAS are the cause of faciocutaneoskeletal syndrome (FCSS) [MIM:218040]. A rare condition characterized by prenatally increased growth, postnatal growth deficiency, mental retardation, distinctive facial appearance, cardiovascular abnormalities (typically pulmonic stenosis, hypertrophic cardiomyopathy and/or atrial tachycardia), tumor predisposition, skin and musculoskeletal abnormalities.

Defects in HRAS are the cause of congenital myopathy with excess of muscle spindles (CMEMS) [MIM:218040]. CMEMS is a variant of Costello syndrome.

Defects in HRAS may be a cause of susceptibility to Hurthle cell thyroid carcinoma (HCTC) [MIM:607464]. Hurthle cell thyroid carcinoma accounts for approximately 3% of all thyroid cancers. Although they are classified as variants of follicular neoplasms, they are more often multifocal and somewhat more aggressive and are less likely to take up iodine than are other follicular neoplasms.

Note=Mutations which change positions 12, 13 or 61 activate the potential of HRAS to transform cultured cells and are implicated in a variety of human tumors.
Defects in HRAS are a cause of susceptibility to bladder cancer (BLC) [MIM:109800]. A malignancy originating in tissues of the urinary bladder. It often presents with multiple tumors appearing at different times and at different sites in the bladder. Most bladder cancers are transitional cell carcinomas. They begin in cells that normally make up the inner lining of the bladder. Other types of bladder cancer include squamous cell carcinoma (cancer that begins in thin, flat cells) and adenocarcinoma (cancer that begins in cells that make and release mucus and other fluids). Bladder cancer is a complex disorder with both genetic and environmental influences.

Note=Defects in HRAS are the cause of oral squamous cell carcinoma (OSCC).

**Sequence similarities**

Belongs to the small GTPase superfamily. Ras family.

**Post-translational modifications**


**Cellular localization**

Cell membrane. Golgi apparatus membrane. The active GTP-bound form is localized most strongly to membranes than the inactive GDP-bound form (By similarity). Shuttles between the plasma membrane and the Golgi apparatus.

**Western blot**

HRP Anti-Ras antibody [EPR3255] (ab199557) at 1/5000 dilution + HEK293 (Human embryonic kidney cell line) Whole Cell Lysate at 10 µg

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 22 kDa

**Observed band size:** 22 kDa

**Exposure time:** 90 seconds

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab199557 overnight at 4°C. Antibody binding was visualised using ECL development solution ab133406.
HRP Anti-Ras antibody [EPR3255] (ab199557) at 1/5000 dilution + SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate at 10 
µg

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 22 kDa  
**Observed band size:** 22 kDa

**Exposure time:** 4 minutes

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab199557 overnight at 4°C. Antibody binding was visualised using ECL development solution ab133406.

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

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