

## Product datasheet

### Anti-Ras antibody ab180772

★★★★★ [7 Abreviews](#) [33 References](#) [2 Images](#)

#### Overview

<b>Product name</b>	Anti-Ras antibody
<b>Description</b>	Rabbit polyclonal to Ras
<b>Host species</b>	Rabbit
<b>Specificity</b>	The immunogen used for this product shares 82% homology with HRAS and NRAS. Cross-reactivity with these proteins has not been confirmed experimentally.
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human Ras aa 30-189. Sequence:  D EYDPTIEDSYRKQVVIDGET CLLDILD TAG QEEYSAMRDQ YMRTGEGFLC VFAINNTKSF EDIHHYREQI KRVKDS EDVP MVLVGNKCDL PSRTVDTKQA QDLARSYGIP FIETSAKTRQ RVEDAFYTLV REIRQYRLKK ISKEEKTPGC VKIKKCIM  Database link: <a href="#">P01116</a>  <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	WB: A-549, HeLa and Raji cell lysates. Mouse spleen, lung and rat brain tissue extracts. ICC/IF: C6 cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.

<b>Storage buffer</b>	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 49% PBS, 50% Glycerol
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab180772 in the following tested applications.

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

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB	★★★★★ (3)	1/500 - 1/1000. Predicted molecular weight: 21 kDa.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration. <b>ab171870</b> - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (1)	1/50 - 1/200.

## 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

Palmitoylated by the ZDHHC9-GOLGA7 complex. A continuous cycle of de- and re-palmitoylation regulates rapid exchange between plasma membrane and Golgi.

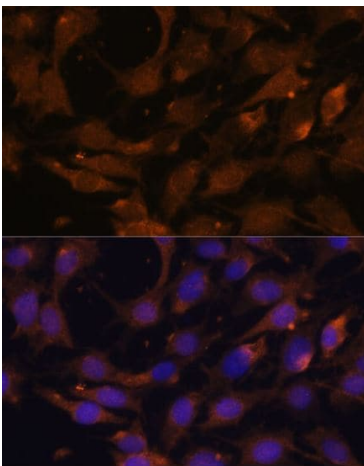
S-nitrosylated; critical for redox regulation. Important for stimulating guanine nucleotide exchange.

No structural perturbation on nitrosylation.

### Cellular localization

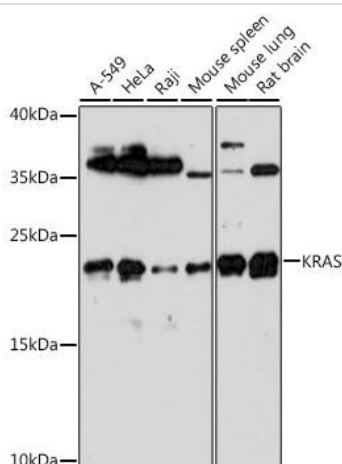
Cell membrane. Golgi apparatus membrane. The active GTP-bound form is localized most strongly to membranes than the inactive GDP-bound form (By similarity). Shuttles between the plasma membrane and the Golgi apparatus.

## Images



Immunofluorescence staining of C6 cells stained for RAS with ab180772 at 1/100 dilution. Nuclei are labeled with DAPI (Blue).

Immunocytochemistry/ Immunofluorescence - Anti-Ras antibody (ab180772)



Western blot - Anti-Ras antibody (ab180772)

**All lanes :** Anti-Ras antibody (ab180772) at 1/1000 dilution

**Lane 1 :** A-549 cell extract

**Lane 2 :** HeLa cell extract

**Lane 3 :** Raji cell extract

**Lane 4 :** Mouse spleen tissue extract

**Lane 5 :** Mouse lung tissue extract

**Lane 6 :** Rat brain tissue extract

Lysates/proteins at 25 µg per lane.

### Secondary

**All lanes :** HRP Goat Anti-Rabbit IgG

Developed using the ECL technique.

**Predicted band size:** 21 kDa

**Exposure time:** 90 seconds

Blocking buffer: 3% nonfat dry milk in TBST.

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

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