# Anti-KRAS antibody ab180772

**Product name** | Anti-KRAS antibody
---|---
**Description** | Rabbit polyclonal to KRAS
**Host species** | Rabbit
**Tested applications** | Suitable for: WB, IHC-P, IP, ICC/IF
**Species reactivity** | Reacts with: Mouse, Rat, Human
**Immunogen** | Recombinant fragment corresponding to Human KRAS aa 30-189.

Sequence:

```
D EYDPTEDSY RKQVVVIDGET CLLDILDTAG
QEEYSAMRDQ YMRTGEGFLC VFAINNTKSF
EDIHHYREQI KRVDSDVP MLVGNKCDL
PSRTVDTQQA QDLARSYGP FIETSAKTRQ
RVEDAFYTLV REIRQYRLKK ISKEEKTGQ VCIIIIM
```

Database link: P01116


## Properties

**Form** | Liquid
**Storage instructions** | 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.
**Storage buffer** | pH: 7.30
Preservative: 0.02% Sodium azide
Constituents: 49% PBS, 50% Glycerol
**Purity** | Immunogen affinity purified
**Clonality** | Polyclonal
**Isotype** | IgG

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

Involvement in disease
Defects in KRAS are a cause of acute myelogenous leukemia (AML) [MIM:601626]. AML is a malignant disease in which hematopoietic precursors are arrested in an early stage of development.

Defects in KRAS are a cause of juvenile myelomonocytic leukemia (JMML) [MIM:607785]. JMML is a pediatric myelodysplastic syndrome that constitutes approximately 30% of childhood cases of myelodysplastic syndrome (MDS) and 2% of leukemia. It is characterized by leukocytosis with tissue infiltration and in vitro hypersensitivity of myeloid progenitors to granulocyte-macrophage colony stimulating factor.

Defects in KRAS are the cause of Noonan syndrome type 3 (NS3) [MIM:609942]. Noonan syndrome (NS) [MIM:163950] is a disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis. It is a genetically heterogeneous and relatively common syndrome, with an estimated incidence of 1 in 1000-2500 live births. Rarely, NS is associated with juvenile myelomonocytic leukemia (JMML). NS3 inheritance is autosomal dominant.

Defects in KRAS are a cause of gastric cancer (GASC) [MIM:613659]; also called gastric cancer intestinal or stomach cancer. Gastric cancer is a malignant disease which starts in the stomach, can spread to the esophagus or the small intestine, and can extend through the stomach wall to nearby lymph nodes and organs. It also can metastasize to other parts of the body. The term gastric cancer or gastric carcinoma refers to adenocarcinoma of the stomach that accounts for most of all gastric malignant tumors. Two main histologic types are recognized, diffuse type and intestinal type carcinomas. Diffuse tumors are poorly differentiated infiltrating lesions, resulting in thickening of the stomach. In contrast, intestinal tumors are usually exophytic, often ulcerating, and associated with intestinal metaplasia of the stomach, most often observed in sporadic disease.

Note=Defects in KRAS are a cause of pylocytic astrocytoma (PA). Pylocytic astrocytomas are neoplasms of the brain and spinal cord derived from glial cells which vary from histologically benign forms to highly anaplastic and malignant tumors.

Defects in KRAS are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome.

Applications
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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-P</td>
<td>1/50 - 1/200. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IP</td>
<td>1/50 - 1/200.</td>
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<tr>
<td>ICC/IF</td>
<td>1/50 - 1/200.</td>
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Target
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They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant.

Note=KRAS mutations are involved in cancer development.

**Sequence similarities**
Belongs to the small GTPase superfamily. Ras family.

**Cellular localization**
Cell membrane.

### Images

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

**Western blot**

All lanes: Anti-KRAS 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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