

**RAS Antibody**  
Catalog # **ASM10429**

**Specification**

**RAS Antibody - Product Information**

Application **ICC/IF, IHC, WB**  
Primary Accession [B2KGV5](#)  
Other Accession [NP\\_035067.2](#)  
Host **Rabbit**  
Reactivity **Human, Mouse, Rat, Bovine**  
Clonality **Polyclonal**

**Description**  
Rabbit Anti-Human RAS Polyclonal

**Target/Specificity**  
Detects ~21kDa.

**Other Names**  
GTPase Hras Antibody, GTPase Kras Antibody, GTPase Nras Antibody, Ha Ras Antibody, K Ras Antibody, K ras p21 Antibody, KRAS Antibody, NRAS Antibody, p21ras Antibody, RASH2 Antibody

**Immunogen**  
Synthetic peptide corresponding to amino acids 31-43 of human RAS. (The immunogen peptide is from the effector binding loop (I2) of the H, K and N-Ras (AA31-43). This sequence is identical yeast, slime mould, fungi, Xenopus, rat, mouse and chicken over these residues.)

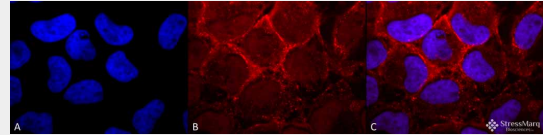
**Purification**  
Protein G Purified

Storage **-20°C**  
**Storage Buffer**  
PBS pH7.4, 50% glycerol, 0.09% sodium azide

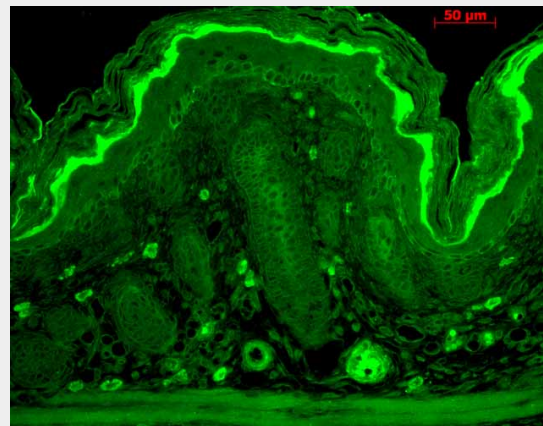
Shipping **Blue Ice or 4°C**  
Temperature

**Certificate of Analysis**  
1 µg/ml of SPC-173 was sufficient for detection of Ras in 20 µg of Hela cell lysate by colorimetric immunoblot analysis using goat anti-rabbit IgG:HRP as the secondary antibody.

**Cellular Localization**



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-RAS Polyclonal Antibody (ASM10429). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-RAS Polyclonal Antibody (ASM10429) at 1:200 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cell membrane. Lipid-anchor. Focal adhesion. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-RAS Antibody. (C) Composite.



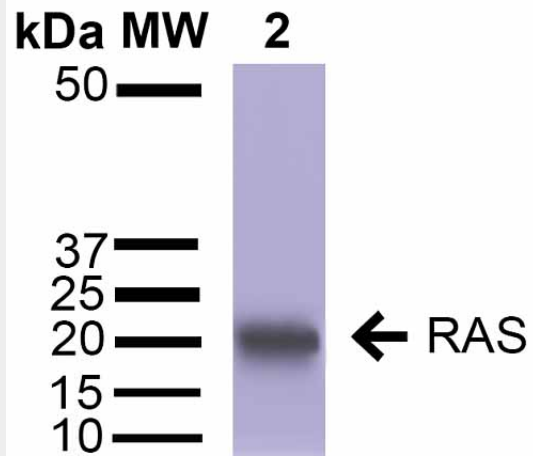
Immunohistochemistry analysis using Rabbit Anti-RAS Polyclonal Antibody (ASM10429). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-RAS Polyclonal Antibody (ASM10429) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:50 for 1 hour at RT. Localization: Basal cell of the epidermis.

Cell Membrane | Golgi Apparatus | Golgi Apparatus Membrane

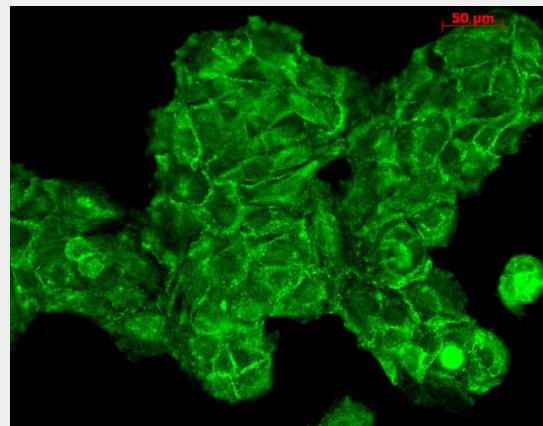
### RAS Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

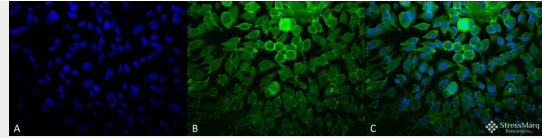
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



Western blot analysis of Mouse Brain Cortex cell lysates showing detection of ~21 kDa RAS protein using Rabbit Anti-RAS Polyclonal Antibody (ASM10429). Lane 1: Molecular Weight Ladder (MW). Lane 2: Mouse Brain Cortex cell lysates. Load: 30  $\mu$ g. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Rabbit Anti-RAS Polyclonal Antibody (ASM10429) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Rabbit IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~21 kDa.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-RAS Polyclonal Antibody (ASM10429). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol at -20C for 10 minutes. Primary Antibody: Rabbit Anti-RAS Polyclonal Antibody (ASM10429) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit at 1:50 for 1-2 hours at RT in dark. Localization: Cell-cell junction.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-RAS Polyclonal Antibody (ASM10429). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-RAS Polyclonal Antibody (ASM10429) at 1:200 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cell membrane. Lipid-anchor. Focal adhesion. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-RAS Antibody. (C) Composite.

### **RAS Antibody - Background**

The 21 kDa guanine-nucleotide binding proteins (K-Ras, H-Ras and N-Ras) cycle between active (GTPbound) and inactive (GDP-bound) forms (1). Receptor tyrosine kinases and G-protein-coupled receptors activate Ras, which then stimulates the Raf-MEK-MAPK pathway (2-4). GTPase-activating proteins (GAP) normally facilitate the inactivation of Ras. However, in 30% of human tumors, point mutations in Ras prevent the GAP-mediated inhibition of this pathway (5). The most common oncogenic Ras mutation found in tumors is Gly12 to Asp (G12D), which prevents Ras inactivation, possibly by increasing the overall rigidity of the protein (5,6).

### **RAS Antibody - References**

1. Boguski M.S. and McCormick F. (1993) Nature 366: 643-654.
2. Avruch J., et al. (1994) Trends Biochem. Sci.19: 279-283.
3. Buday L. and Downward J. (1993) Cell 73: 611-620.
4. Huang D.C., et al. (1993) Mol. Cell Biol. 13: 2420-2431.
5. Bos J.L. (1989) Cancer Res. 49: 4682-4689.
6. Ma J. and Karplus M. (1997) J. Mol. Biol. 274:114-131.