AbFlex® NRAS antibody (rAb)

Catalog Nos: 91429, 91430
RRID: AB_3216309
Application(s): DB, WB
Reactivity: Human, Mouse, Rat

Quantities: 100 µg, 10 µg
Purification: Protein A Chromatography
Host: Rabbit
Isotype: IgG
Molecular Weight: 21 kDa

Background: AbFlex® antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis Tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports.

AbFlex® NRAS antibody was expressed as full-length IgG with mouse immunoglobulin heavy and light chains in mammalian 293 cells. The antibody was directly labeled with biotin using the biotin ligase, BirA.

Oncogenic mutations in Ras genes have been found in about 30% of human cancers. This family of genes is involved in cell signaling pathways that control cell growth and death. The human Ras gene family consists of three identified members H-, K- and **NRAS** encoding proteins of 188-189 amino acids and 21,000 (p21) daltons. The **NRAS** oncogene encodes a membrane protein that shuttles between the Golgi apparatus and the plasma membrane. This protein is activated by a guanine nucleotide-exchange factor and inactivated by a GTPase activating protein. Human H- and K-Ras are the homologues of v-H- and v-K-ras, sequences. Under normal circumstances the Ras-GTPase activity gradually converts GTP to GDP, but in oncogenic mutations Ras locks the protein into the active GTP conformation. This leads to a constant Ras gene and uncontrollable cell growth. Due to these intracellular relationship Ras antibodies have emerged as a valuable tool for target validation studies for cancer.

Immunogen: This information is proprietary to Active Motif and/or its suppliers.

Buffer: Purified IgG in 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

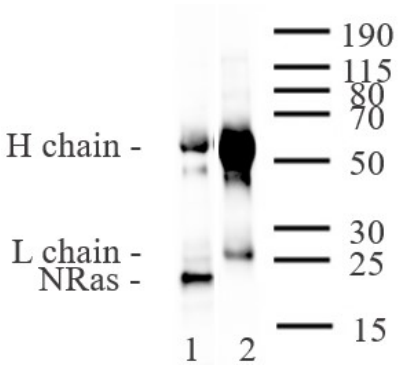
Application Notes:
Applications Validated by Active Motif:
IP: 4 µg per IP
WB*: 0.5-2 µg/ml
DB:1µg/µl

For optimal results, we recommend the addition of 0.05% Tween 20 to all blocking solutions to reduce background. Individual optimization may be required.

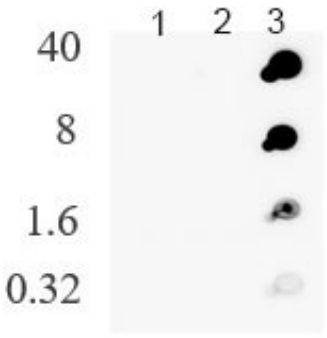
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

AbFlex® **NRAS antibody (rAb) tested by Western blot.**
Whole cell extract of MCF7 (20 µg / lane) was probed with NRAS antibody (rAb) at 0.5 µg/mL.



AbFlex® **NRAS antibody (rAb) tested by Immunoprecipitation**
500 µg of MCF7 whole cell extract was immunoprecipitated with 4 µg of either AbFlex® NRAS antibody (Lane 1) or Rabbit IgG (Lane 2). Immunoprecipitated proteins were run on SDS-PAGE and probed using a recombinant antibody specific for NRAS (Cat. No. 91429) at 1 µg/ml. On the gel, antibody heavy chains (50 kDa) and light chains (25 kDa) are visible.



AbFlex® **NRAS antibody (rAb) tested by dot blot analysis.**
Dot blot analysis was used to confirm the specificity of NRAS antibody (rAb). Recombinant proteins were spotted onto nitrocellulose and probed with NRAS antibody (rAb) at 1 µg/µl. The amount of protein (nanograms) spotted is indicated next to each row.
Lane 1: HRAS. Lane 2: KRAS. Lane 3: NRAS.