# **PRODUCT INFORMATION**

Catalog number ATGA0350

Clone No. AT2F8

Product type Monoclonal Antibody

UnitProt No. P01116

NCBI Accession No. NP\_203524

#### **Alternative Names**

GTPase Kras, C-K-RAS, K-RAS2A, K-RAS2B, K-RAS4A, K-RAS4B, KI-RAS, KRAS1, NS3, RASK2, GTPase Kras, K-RAS2A, K RAS2B, K RAS4A, K RAS4B, KI RAS, KRAS 1, NS 3

## **PRODUCT SPECIFICATION**

Antibody Host Mouse

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Reacts With Human

**Concentration** 1mg/ml (determined by BCA assay)

#### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

#### Immunogen

Recombinant human KRAS (1-186aa) purified from E. coli

# lsotype

IgG2b kappa

**Purification Note** By protein-A affinity chromatography

#### Application

ELISA,WB,ICC/IF

#### Usage

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.



#### Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

#### Description

All RAS protein family members belong to a class of protein called small GTPase, and are involved cellular signal transduction. RAS is 'switched on' by incoming signals, it subsequently switches on other proteins, which ultimately turn on genes involved in cell growth, differentiation and survival. Mutations in RAS genes can lead to the production of permanently activated RAS proteins. This can cause unintended and overactive signaling inside the cell, even in the absence of incoming signals. Because these signals result in cell growth and division, overactive RAS signaling can ultimately lead to cancer. The 3 Ras genes in humans (HRas, KRas, NRas) are the most common oncogenes in human cancer; mutations that permanently activate RAS are found in 20% to 25% of all human tumors and up to 90% in certain types of cancer. RAS inhibitors are being studied as a treatment for cancer, and other diseases with RAS overexpression.

#### **General References**

McGrath JP., et al. (1983) Nature. 304(5926): 501-506. Schubbert S., et al. (2006) Nat Genet. 38(3): 331-336.

## DATA

#### Western blot analysis (WB)



The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human KRAS antibody (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1. : HeLa cell lysate Lane 2. : HepG2 cell lysate Lane 3. : Ramos cell lysate

Lane 4. : A549 cell lysate Lane 5. : Balb/3T3 cell lysate

The Recombinant proteins (100ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human RAS antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1. : KRAS recombinant protein (ATGP2062) Lane 2. : HRAS recombinant protein (ATGP0516) Lane 3. : NRAS recombinant protein (ATGP0492)

2



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### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of RAS in HeLa cells. The cell was stained with ATGA0350 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

