

# Polyclonal Anti- KRAS Antibody

Catalog Number: PA1457

## Description

<b>Gene Name</b>	v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
<b>Recommended Protein Name</b>	GTPase Kras
<b>Lot No.</b>	0141112025783
<b>Size</b>	100µg/vial
<b>Form</b>	lyophilized
<b>Ig type</b>	Rabbit IgG
<b>Specificity</b>	No cross reactivity with other proteins.
<b>Purification</b>	Immunogen affinity purified.
<b>Species</b>	<b>Reacts with:</b> human, mouse, rat
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence at the C-terminus of human KRAS(164-178aa/b RKHKEKMSKDGKKKK), identical to the related mouse and rat sequence.
<b>Contents</b>	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .

## Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu, Ms, Rat	-	-

**Tested Species:** In-house tested species with positive results.

**Predicted Species:** Species predicted to be fit for the product based on sequence similarities.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end users.*

## Preparation and storage

**Reconstitution:** 0.2ml of distilled water will yield a concentration of 500µg/ml.

**Storage:** At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

## Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

## Background

K-ras, V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog, is a protein that in humans is encoded by the KRAS gene. Like other members of the Ras family, the K-ras protein is a GTPase and is an early player in many signal transduction pathways. K-ras is usually tethered to cell membranes because of the presence of an isoprenyl group on its C-terminus. The K-ras gene spans 38 kb and contains 4 exons. By in situ hybridization, the K-ras gene is mapped to chromosome 12p12.1-p11.1. K-ras acts as a molecular on/off switch. Once it is turned on it recruits and activates proteins necessary for the propagation of growth factor and other receptors' signal, such as c-Raf and PI 3-kinase. K-ras binds to GTP in the active state and possesses an intrinsic enzymatic activity which cleaves the terminal phosphate of the nucleotide converting it to GDP.

## Reference

1. Popescu, N. C., Amsbaugh, S. C., DiPaolo, J. A., Tronick, S. R., Aaronson, S. A., Swan, D. C. Chromosomal localization of three human ras genes by in situ molecular hybridization. *Somat. Cell Molec. Genet.* 11: 149-155, 1985.
2. Porta, M., Malats, N., Jariod, M., Grimalt, J. O., Rifa, J., Carrato, A., Guarner, L., Salas, A., Santiago-Silva, M., Corominas, J. M., Andreu, M., Real, F. X. Serum concentrations of organochlorine compounds and K-ras mutations in exocrine pancreatic cancer.
3. Weinberg, R. A. Fewer and fewer oncogenes. *Cell* 30: 3-4, 1982.