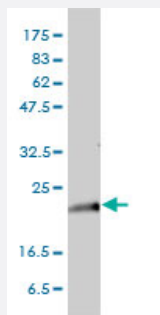


KRAS monoclonal antibody (M01), clone 3B10-2F2

Catalog # H00003845-M01

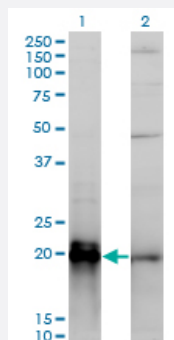
Size 100 ug

Applications



Western Blot (Cell lysate)

KRAS monoclonal antibody (M01), clone 3B10-2F2 Western Blot analysis of KRAS expression in HeLa (Cat # L013V1).

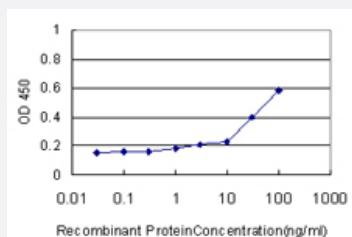


Western Blot (Transfected lysate)

Western Blot analysis of KRAS expression in transfected 293T cell line by KRAS monoclonal antibody (M01), clone 3B10-2F2.

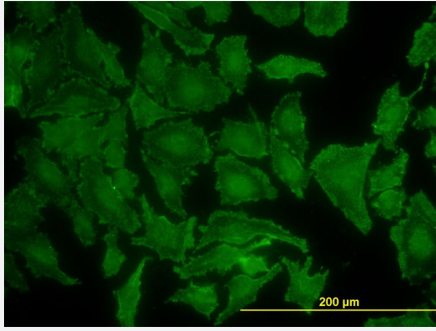
Lane 1: KRAS transfected lysate(21 KDa).

Lane 2: Non-transfected lysate.



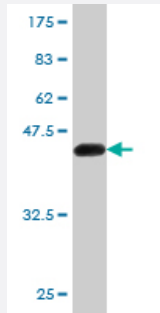
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged KRAS is approximately 1ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to KRAS on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (46.42 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full length recombinant KRAS.
Immunogen	KRAS (AAH13572, 1 a.a. ~ 188 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQVVIDGETCLLDILDITAGHEEYSAMRDQYMRTGEGFLCVFAINNTKSFEDIHHYREQIKRVKDSQEDVPMVLVGNKCDLPSRTVDTKQAQDLARSYGIPFIETSAKTRQGVDDAFYTLVREIRKHKEKMSKDGGKKKKKSKTKCVIM
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (97); Rat (97)
Isotype	IgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (46.42 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

KRAS monoclonal antibody (M01), clone 3B10-2F2 Western Blot analysis of KRAS expression in HeLa (Cat # L013V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of KRAS expression in transfected 293T cell line by KRAS monoclonal antibody (M01), clone 3B10-2F2.

Lane 1: KRAS transfected lysate(21 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged KRAS is approximately 1ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- Immunofluorescence

Immunofluorescence of monoclonal antibody to KRAS on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — KRAS

Entrez GeneID	3845
GeneBank Accession#	BC013572
Protein Accession#	AAH13572
Gene Name	KRAS
Gene Alias	C-K-RAS, K-RAS2A, K-RAS2B, K-RAS4A, K-RAS4B, KI-RAS, KRAS1, KRAS2, NS3, RASK2
Gene Description	v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog
Omim ID	109800 114480 137215 190070 211980 218040 260350 609942

Gene Ontology

[Hyperlink](#)

Gene Summary

This gene, a Kirsten ras oncogene homolog from the mammalian ras gene family, encodes a protein that is a member of the small GTPase superfamily. A single amino acid substitution is responsible for an activating mutation. The transforming protein that results is implicated in various malignancies, including lung adenocarcinoma, mucinous adenoma, ductal carcinoma of the pancreas and colorectal carcinoma. Alternative splicing leads to variants encoding two isoforms that differ in the C-terminal region. [provided by RefSeq]

Other Designations

K-ras p21 protein|Kirsten rat sarcoma-2 viral (v-Ki-ras2) oncogene homolog|PR310 c-K-ras oncogene|c-K-ras2 protein|c-Kirsten-ras protein|cellular c-Ki-ras2 proto-oncogene|oncogene KRAS2|transforming protein p21|v-Ki-ras2 Kirsten rat sarcoma 2 viral oncogene

Publication Reference

- [Oncogenic KRAS mutation confers chemoresistance by upregulating SIRT1 in non-small cell lung cancer.](#)

Dong Hoon Shin, Jeong Yeon Jo, Minyoung Choi, Kyung-Hee Kim, Young-Ki Bae, Sang Soo Kim.

Experimental & Molecular Medicine 2023 Oct; 55(10):2220.

Application: WB, Human, Mouse, HEK293T cells, Lung

- [Endogenous spacing enables co-processing of microRNAs and efficient combinatorial RNAi.](#)

Alexandra M Amen, Ryan M Loughran, Chun-Hao Huang, Rachel J Lew, Archana Ravi, Yuanzhe Guan, Emma M Schatoff, Lukas E Dow, Brooke M Emerling, Christof Fellmann.

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Application: WB-Tr, Human, H1975, PC9 cells

- [EndoBind detects endogenous protein-protein interactions in real time.](#)

Anke Bill, Sheryll Espinola, Daniel Guthy, Jacob R Haling, Mylene Lanter, Min Lu, Anthony Marelli, Angelica Mendiola, Loren Miraglia, Brandon L Taylor, Leonardo Vargas, Anthony P Orth, Frederick J King.

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Application: WB-Tr, Human, PATU8988T cells

- [The Combination of Loss of ALDH1L1 Function and Phenformin Treatment Decreases Tumor Growth in KRAS-Driven Lung Cancer.](#)

Seon-Hyeong Lee, Yoon Jeon, Joon Hee Kang, Hyonchol Jang, Ho Lee, Soo-Youl Kim.

Cancers 2020 May; 12(6):E1382.

Application: WB-Tr, Human, A-549 cells, H1299 cells, H1975 cells, H23 cells, H460 cells, HOP-62 cells

- [Grifolin, neogrifolin and confluentin from the terricolous polypore Albatrellus flettii suppress KRAS expression in human colon cancer cells.](#)

Almas Yaqoob, Wai Ming Li, Victor Liu, Chuyi Wang, Sebastian Mackedenski, Linda E Tackaberry, Hugues B Massicotte, Keith N Egger, Kerry Reimer, Chow H Lee.

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Application: WB-Ce, Human, SW480 cells

- [K-Ras G-domain binding with signaling lipid phosphatidylinositol \(4,5\)-phosphate \(PIP2\): membrane association, protein orientation, and function.](#)

Cao S, Chung S, Kim S, Li Z, Manor D, Buck M.

The Journal of Biological Chemistry 2019 Apr; 294(17):7068.

Application: IF, Mouse, NIH/3T3 cells

- [Bilateral blockade of MEK- and PI3K-mediated pathways downstream of mutant KRAS as a treatment approach for peritoneal mucinous malignancies.](#)

Kuracha MR, Thomas P, Loggie BW, Govindarajan V.

PLoS One 2017 Jun; 12(6):e0179510.

Application: WB, Human, LS174T, RW7213 cells

- [miR-155 is positively regulated by CBX7 in mouse embryonic fibroblasts and colon carcinomas, and targets the KRAS oncogene.](#)

Forzati F, De Martino M, Esposito F, Sepe R, Pellecchia S, Malapelle U, Pellino G, Arra C, Fusco A.

BMC Cancer 2017 Mar; 17(1):170.

Application: WB-Tr, Human, Mouse, A-549, HEK 293, MEF cells

- [Cell surface protease activation during RAS transformation: Critical role of the plasminogen receptor, S100A10.](#)

Madureira PA, Bharadwaj AG, Bydoun M, Garant K, O'Connell P, Lee P, Waisman DM.

Oncotarget 2016 Jul; 7(30):47720.

Application: WB-Tr, Human, A549, MiaPaca2 cells

- [Overexpression of DDX43 mediates MEK-Inhibitor Resistance through RAS up-regulation in Uveal Melanoma Cells.](#)

Ambrosini G, Khanin R, Carvajal RD, Schwartz GK.

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Application: WB-Tr, Human, Omm1.3, Mel270 cells

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International Journal of Experimental Pathology 2014 Aug; 95(4):244.

Application: WB-Ce, WB-Ti, WB-Tr, Human, Renal cell carcinoma, RCC4 cells

- [KRAS gene amplification in colorectal cancer and impact on response to EGFR-targeted therapy.](#)

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International Journal of Cancer 2013 Sep; 133(5):1259.

Application: FISH, Human, CRC cells

- [Analysis of k-ras nuclear expression in fibroblasts and mesangial cells.](#)

Fuentes-Calvo I, Blazquez-Medela AM, Santos E, Lopez-Novoa JM, Martinez-Salgado C.

PLoS One 2010 Jan; 5(1):e8703.

Application: WB, Human, Fibroblasts, Mesangial cells

Pathway

- [Acute myeloid leukemia](#)
- [Axon guidance](#)
- [B cell receptor signaling pathway](#)
- [Bladder cancer](#)
- [Chemokine signaling pathway](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Dorso-ventral axis formation](#)
- [Endometrial cancer](#)
- [ErbB signaling pathway](#)
- [Fc epsilon RI signaling pathway](#)
- [Gap junction](#)
- [Glioma](#)

- [GnRH signaling pathway](#)
- [Insulin signaling pathway](#)
- [Long-term depression](#)
- [Long-term potentiation](#)
- [MAPK signaling pathway](#)
- [Melanogenesis](#)
- [Melanoma](#)
- [Natural killer cell mediated cytotoxicity](#)
- [Neurotrophin signaling pathway](#)
- [Non-small cell lung cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)
- [Regulation of actin cytoskeleton](#)
- [Renal cell carcinoma](#)
- [T cell receptor signaling pathway](#)
- [Thyroid cancer](#)
- [Tight junction](#)
- [VEGF signaling pathway](#)

Disease

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- [Acute Disease](#)
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- [Adenoma](#)
- [Adenomatous Polyposis Coli](#)

- [Alcoholism](#)
- [Anus Neoplasms](#)
- [Biliary Tract Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
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- [Cardiomyopathy](#)
- [Cell Transformation](#)
- [Cholangiocarcinoma](#)
- [Chromosomal Instability](#)
- [Chromosome Aberrations](#)
- [Chromosome Deletion](#)
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- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colonic Polyps](#)
- [Colorectal Neoplasms](#)
- [Common Bile Duct Neoplasms](#)
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- [Diarrhea](#)
- [Dilatation](#)
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- [Down Syndrome](#)

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- [Endometrial Hyperplasia](#)
- [Endometrial Neoplasms](#)
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- [Eosinophilia](#)
- [Esophageal Neoplasms](#)
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- [Gastrointestinal Stromal Tumors](#)
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- [Genomic Instability](#)
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- [Paraproteinemias](#)

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- [Prostatic Neoplasms](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Pulmonary Valve Stenosis](#)
- [Ras oncogene](#)
- [Rectal Neoplasms](#)
- [Recurrence](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Sarcoma](#)
- [Skin Abnormalities](#)
- [Stomach Neoplasms](#)
- [Syndrome](#)
- [Testicular Neoplasms](#)
- [Thrombophilia](#)
- [Thyroid Diseases](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Tonsillar Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Neoplasms](#)
- [Werner syndrome](#)