

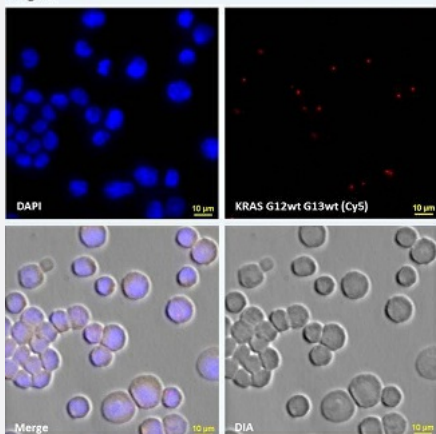
mutaFISH™ KRAS G12wt G13wt RNA Probes

Catalog # FP0017

Size 1 Probe Set

Applications

Fig. 1



mutation specific, Fluorescence *In Situ* Hybridization (Cells)

Fig.1 mutaFISH™ staining was performed *in situ* in human HCT116 cells. KRAS G12wt and G13wt were detected via red signal (Cy5).

Fig.2 mutaFISH™ staining was performed *in situ* in human WIDR cells. KRAS G12wt and G13wt were detected via red signal (Cy5).

Fig.3 mutaFISH™ staining was performed *in situ* in human SW480 cells. KRAS G12wt and G13wt were not detected.

Fig. 2

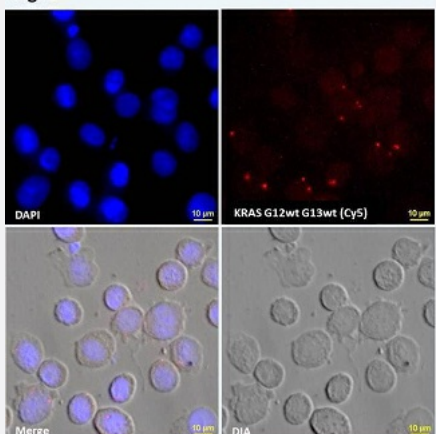
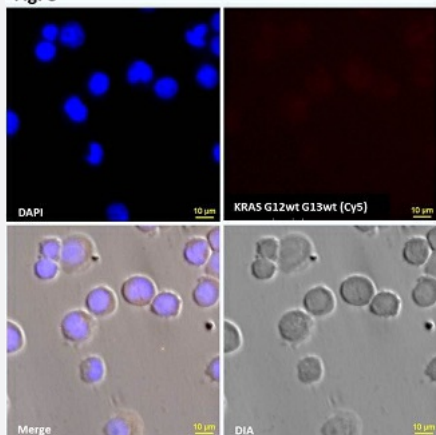


Fig. 3



Specification

Product Description

mutaFISH™ KRAS G12wt G13wt RNA Probes is designed to detect human KRAS G12/G13 wildtype on single strand RNA in cells using padlock probe and *in situ* rolling-circle amplification technology.

Reactivity

Human

Supplied Product	Content: 1. RT KRAS G12/G13 Primer 2. mutaFISH™ KRAS G12wt RNA Probe 1 3. mutaFISH™ KRAS G12wt RNA Probe 2 4. mutaFISH™ KRAS G13wt RNA Probe 5. Detection Probe-Texas Red X
Technology	mutaFISH™ (mutation-specific Fluorescence <i>In Situ</i> Hybridization)
Comparison	FISH Probes vs mutaFISH™ Probes
Fluorophore	Texas Red X (Excitation Peak (nm): 595; Emission Peak 613)
Probe Position	
Regulatory Status	For research use only (RUO)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	We recommend mutaFISH™ RNA Accessory Kit (Catalog #: KA4915) which provides necessary reagents and enzymes for <i>in situ</i> reverse transcription, RNA digestion, mutaFISH™ hybridization, ligation and amplification prior to mutaFISH™.
Video	

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Fig.3 mutaFISH™ staining was performed *in situ* in human SW480 cells. KRAS G12wt and G13wt were not detected.

Gene Info — KRAS

Entrez GeneID	3845
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

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](#)

- [Adenocarcinoma](#)
- [Adenoma](#)
- [Adenomatous Polyposis Coli](#)
- [Alcoholism](#)
- [Anus Neoplasms](#)
- [Biliary Tract Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiomyopathy](#)
- [Cell Transformation](#)
- [Cholangiocarcinoma](#)
- [Chromosomal Instability](#)
- [Chromosome Aberrations](#)
- [Chromosome Deletion](#)
- [Cognition Disorders](#)
- [Colitis](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colonic Polyps](#)
- [Colorectal Neoplasms](#)
- [Common Bile Duct Neoplasms](#)
- [Crohn Disease](#)
- [Cystadenocarcinoma](#)
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- [Diarrhea](#)

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- [Disease Progression](#)
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- [Esophageal Neoplasms](#)
- [Exanthema](#)
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- [Genomic Instability](#)
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- [Inflammatory Bowel Diseases](#)
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- [Leukemia](#)
- [Liver Neoplasms](#)

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- [Lymphatic Metastasis](#)
- [Lymphoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Microsatellite Instability](#)
- [Mouth Neoplasms](#)
- [Multiple Myeloma](#)
- [Myoma](#)
- [Nausea](#)
- [Necrosis](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Nerve Sheath Neoplasms](#)
- [Neurofibromatosis](#)
- [Neurofibromatosis 1](#)
- [Neutropenia](#)
- [Noonan Syndrome](#)
- [Obesity](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)

- [Pancreatitis](#)
- [Papillomavirus Infections](#)
- [Paraproteinemias](#)
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- [Polycystic Ovary Syndrome](#)
- [Precancerous Conditions](#)
- [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](#)
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- [Thyroid Neoplasms](#)
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- [Tonsillar Neoplasms](#)

- [Urinary Bladder Neoplasms](#)
- [Uterine Neoplasms](#)
- [Werner syndrome](#)