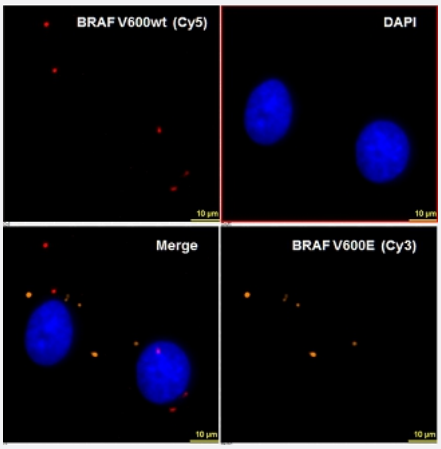
# mutaFISH™ BRAF V600E V600wt RNA Probes

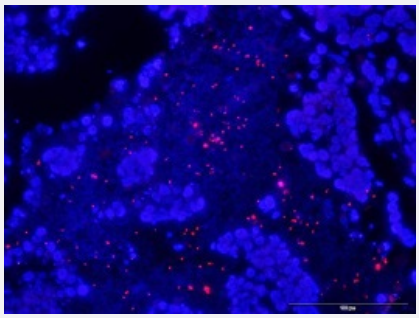
Catalog # FP0011 Size 1 Probe Set

## Applications




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

mutaFISH™ staining was performed *in situ* in human Sk-HEP1 cells. BRAF V600E point mutation was detected via orange signal (Cy3), BRAF V600wt was detected via red signal (Cy5).



### mutation specific, Fluorescence *In Situ* Hybridization (FFPE Tissue)

mutaFISH™ staining was performed *in situ* in mouse FFPE BRAF 293T tissue. BRAF V600wt was detected via red signal (Texas Red X).

## Specification

| | |
|---|---|
| **Product Description** | mutaFISH™ BRAF V600E V600wt RNA Probes is designed to detect human BRAF V600E gene mutation on single strand RNA in cells using padlock probe and *in situ* rolling-circle amplification technology. |
| **Reactivity** | Human |

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| | |
|---|---|
| **Supplied Products** | Content:<br>1. RT BRAF V600 Primer<br>2. mutaFISH™ BRAF V600E RNA Probe<br>3. mutaFISH™ BRAF V600wt RNA Probe<br>4. Detection Probe-Aqua 431<br>5. Detection Probe-Texas Red X |
| **Technology** | mutaFISH™ (mutation-specific Fluorescence *In Situ* Hybridization) |
| **Comparison** | FISH Probes vs mutaFISH™ Probes |
| **Fluorophore** | Aqua 431 (Excitation Peak (nm): 431; Emission Peak (nm): 480)<br>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.<br>Aliquot to avoid repeated freezing and thawing. |
| **Note** | We recommend mutaFISH™ RNA Accessory Kit (Catalog #: KA4915) which provides necessary re agents and enzymes for *in situ* reverse transcription, RNA digestion, mutaFISH™ hybridization, ligati on and amplication prior to mutaFISH™. |
| **Self-Attestation** | Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening |
| **Video** | |

## Applications

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## Gene Info — BRAF

| | |
|---|---|
| **Entrez GeneID** | 673 |
| **Gene Name** | BRAF |
| **Gene Alias** | B-RAF1, BRAF1, FLJ95109, MGC126806, MGC138284, RAFB1 |
| **Gene Description** | v-raf murine sarcoma viral oncogene homolog B1 |
| **Omim ID** | 115150 164757 211980 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | This gene encodes a protein belonging to the raf/mil family of serine/threonine protein kinases. Th is protein plays a role in regulating the MAP kinase/ERKs signaling pathway, which affects cell div ision, differentiation, and secretion. Mutations in this gene are associated with cardiofaciocutane ous syndrome, a disease characterized by heart defects, mental retardation and a distinctive faci al appearance. Mutations in this gene have also been associated with various cancers, including non-Hodgkin lymphoma, colorectal cancer, malignant melanoma, thyroid carcinoma, non-small cel l lung carcinoma, and adenocarcinoma of lung. A pseudogene, which is located on chromosome X, has been identified for this gene. [provided by RefSeq |
| **Other Designations** | 94 kDa B-raf protein\|B-Raf proto-oncogene serine/threonine-protein kinase (p94)\|Murine sarcom a viral (v-raf) oncogene homolog B1 |

## Pathway

- Acute myeloid leukemia
- Bladder cancer
- Chemokine signaling pathway
- Chronic myeloid leukemia
- Colorectal cancer
- Endometrial cancer
- ErbB signaling pathway

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- Focal adhesion
- Glioma
- Insulin signaling pathway
- Long-term depression
- Long-term potentiation
- MAPK signaling pathway
- Melanoma
- mTOR signaling pathway
- 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
- Thyroid cancer
- Vascular smooth muscle contraction

## Disease

- Abnormalities
- Adenocarcinoma
- Adenoma
- Adrenal Cortex Neoplasms
- Alcoholism
- Articulation Disorders

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- Astrocytoma
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Cell Transformation
- Chromosomal Instability
- Chromosome Aberrations
- Cognition
- Cognition Disorders
- Colon cancer
- Colonic Neoplasms
- Colonic Polyps
- Colorectal Neoplasms
- Common Bile Duct Neoplasms
- Craniofacial Abnormalities
- Cystadenocarcinoma
- Cystadenoma
- Developmental Disabilities
- Dilatation
- Disease Progression
- Diseases in Twins
- Dyslexia
- Ectodermal Dysplasia
- Endometrial Hyperplasia
- Endometrial Neoplasms

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- Endometriosis
- Eosinophilia
- Esophageal Neoplasms
- Gastrointestinal Stromal Tumors
- Genetic Predisposition to Disease
- Glioma
- Goiter
- Hashimoto Disease
- Head and Neck Neoplasms
- Hearing
- Heart Defects
- Hyperpigmentation
- Hyperplasia
- Immunologic Deficiency Syndromes
- Language Disorders
- Liver Neoplasms
- Lung Neoplasms
- Lymphatic Metastasis
- Lymphoma
- Malignant melanoma
- Melanoma
- Memory
- Microsatellite Instability
- Motor Skills
- Nasopharyngeal Neoplasms
- Necrosis

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- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Nerve Sheath Neoplasms
- Neurofibromatosis
- Neurofibromatosis 1
- Nevus
- Noonan Syndrome
- Obesity
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Papillomavirus Infections
- Precancerous Conditions
- Prostatic Neoplasms
- Ras oncogene
- Rectal Neoplasms
- Recurrence
- Salivary Gland Neoplasms
- Skin Neoplasms
- Stomach Neoplasms
- Syndrome
- Testicular Neoplasms
- Thyroid Diseases

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- Thyroid Neoplasms
- Thyroid Nodule
- Thyroiditis
- Tobacco Use Disorder
- Urinary Bladder Neoplasms

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