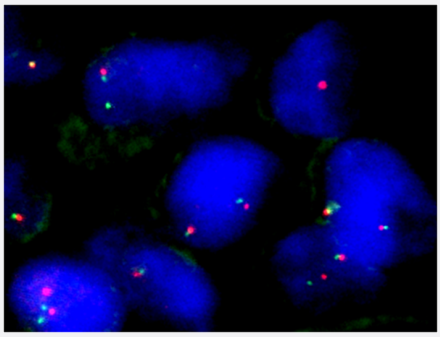
Sm Size

# NF2/CEN22q FISH Probe

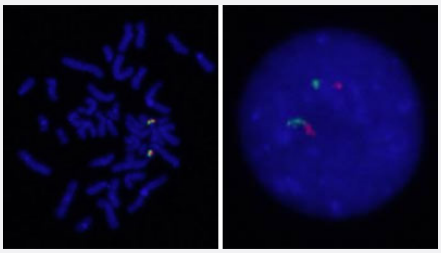
Catalog # FG0003 Size 200 uL, 100 uL

## Applications



### Fluorescent *In Situ* Hybridization (Formalin/PFA-fixed paraffin-embedded sections)

Human breast cancer (FFPE) stained with NF2/CEN22q FISH Probe. Human breast cancer showed no NF2 gene amplification.



### Hybridization position of the probes on the chromosome.

Hybridization position of the probes on the chromosome.

## Specification

| | |
|---|---|
| **Product Description** | Labeled FISH probes for identification of gene amplification using Fluorescent In Situ Hybridization T echnique. (Technology). |

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| | |
|---|---|
| **Probe 1** | **Name:** NF2<br>**Size:** Approximately 300kb<br>**Fluorophore:** Texas Red<br>**Location:** 22q12.2 |
| **Probe 2** | **Name:** CEN22q<br>**Size:** Approximately 620kb<br>**Fluorophore:** FITC<br>**Location:** 22q11.22 |
| **Probe Gap** | The gap between two probes is approximately 4,000 kb. |
| **Origin** | Human |
| **Source** | Genomic DNA |
| **Reactivity** | Human |
| **Form** | Liquid |
| **Notice** | We **strongly recommend** the customer to use FFPE FISH PreTreatment Kit 1 (Catalog #: KA2375 or KA2691) for the pretreatment of Formalin-Fixed Paraffin-Embedded (FFPE) tissue sections. |
| **Regulation Status** | For research use only (RUO) |
| **Quality Control Testing** | Representative images of normal human cell (lymphocyte) stain with the dual color FISH probe. The l eft image is chromosomes at metaphase, and the right image is an interphase nucleus. |
| **Supplied Products** | DAPI Counterstain (1500 ng/mL ) 125 uL for each 100 uL FISH Probe |
| **Storage Instruction** | Store at 4°C in the dark. |
| **Note** | Hybridization position of the probes on the chromosome.<br><br>Hybridization position of the probes on the chromosome. |
| **Self-Attestation** | Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening |

## Applications

- Fluorescent *In Situ* Hybridization (Formalin/PFA-fixed paraffin-embedded sections)

  Human breast cancer (FFPE) stained with NF2/CEN22q FISH Probe. Human breast cancer showed no NF2 gene amplification.

  Protocol Download

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- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

## Gene Info — NF2

| | |
|---|---|
| **Entrez GeneID** | 4771 |
| **Gene Name** | NF2 |
| **Gene Alias** | ACN, BANF, SCH |
| **Gene Description** | neurofibromin 2 (merlin) |
| **Omim ID** | 101000 162091 607174 607379 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | This gene encodes a protein that is similar to some members of the ERM (ezrin, radixin, moesin) family of proteins that are thought to link cytoskeletal components with proteins in the cell membrane. This gene product has been shown to interact with cell-surface proteins, proteins involved in cytoskeletal dynamics and proteins involved in regulating ion transport. This gene is expressed at high levels during embryonic development; in adults, significant expression is found in Schwann cells, meningeal cells, lens and nerve. Mutations in this gene are associated with neurofibromatosis type II which is characterized by nervous system and skin tumors and ocular abnormalities. Two predominant isoforms and a number of minor isoforms are produced by alternatively spliced transcripts. [provided by RefSeq |
| **Other Designations** | merlin\|moesin-ezrin-radixin like\|moesin-ezrin-radizin-like protein\|neurofibromin 2\|neurofibromin 2 (bilateral acoustic neuroma)\|schwannomerlin\|schwannomin |

## Publication Reference

- Usefulness of NF2 hemizygous loss detected by fluorescence in situ hybridization in diagnosing pleural mesothelioma in tissue and cytology material: A multi-institutional study.

  Prakasit Sa-Ngiamwibool, Makoto Hamasaki, Yoshiaki Kinoshita, Shinji Matsumoto, Ayuko Sato, Tohru Tsujimura, Kunimitsu Kawahara, Takahiko Kasai, Kei Kushitani, Yukio Takeshima, Kenzo Hiroshima, Akinori Iwasaki, Kazuki Nabeshima.

  Lung Cancer 2022 Nov; 175:27.

  Application: FISH-P, Human, Human Lung

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- Fluorescence in situ hybridization detection of chromosome 22 monosomy in pleural effusion cytology for the diagnosis of mesothelioma.

  Yoshiaki Kinoshita, Makoto Hamasaki, Shinji Matsumoto, Masayo Yoshimura, Ayuko Sato, Tohru Tsujimura, Toshiaki Kamei, Kunimitsu Kawahara, Akinori Iwasaki, Kazuki Nabeshima.

  Cancer Cytopathology 2021 Jul; 129(7):526.

  Application: FISH-P, Human, Human malignant pleural mesothelioma, Human reactive mesothelial cells

- WHO Grade I Meningioma Metastasis to the Lung 26 Years after Initial Surgery: A Case Report and Literature Review.

  Enomoto T, Aoki M, Kouzaki Y, Abe H, Imamura N, Iwasaki A, Inoue T, Nabeshima K.

  NMC Case Report Journal 2019 Sep; 6(4):125.

  Application: FISH, Human, Human lung tumor

- Hemizygous loss of NF2 detected by fluorescence in situ hybridization is useful for the diagnosis of malignant pleural mesothelioma.

  Kinoshita Y, Hamasaki M, Yoshimura M, Matsumoto S, Iwasaki A, Nabeshima K.

  Modern Pathology 2019 Jun; [Epub].

  Application: FISH-P, Human, Human malignant pleural mesothelioma

- A Prolonged Response to Platinum-Based Therapy in a Patient with Metastatic Urothelial Carcinoma Harboring a Single Rearranged and Truncated NF2 Gene.

  Achkar T, Ali SM, Welsh A, Dhir R, Gollin SM, Parikh RA.

  Genes, Chromosomes & Cancer 2018 Mar; [Epub].

  Application: FISH-P, Human, Lymph node

- Malignant mesothelioma in situ.

  Churg A, Hwang H, Tan L, Qing G, Taher A, Tong A, Bilawich AM, Dacic S.

  Histopathology 2018 May; 72(6):1033.

  Application: FISH, Human, Mesothelial cells

- Intraoral Pseudo-Onion Bulb Intraneural Proliferations in a Patient with Hemimandibular Hyperplasia: A Case Report and Review of the Literature.

  Vargo RJ, Potluri A, Bauer RE, Seethala RR, Bilodeau EA.

  Head and Neck Pathology 2016 Dec; 10(4):475.

  Application: FISH, Human, Tongue

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- Clinical impact of targeted amplicon sequencing for meningioma as a practical clinical-sequencing system.

  Yuzawa S, Nishihara H, Yamaguchi S, Mohri H, Wang L, Kimura T, Tsuda M, Tanino M, Kobayashi H, Terasaka S, Houkin K, Sato N, Tanaka S.

  Modern Pathology 2016 Apr; 29(7):708.

  Application: FISH, Human, Meningiomas

- Genomic gains and losses in malignant mesothelioma demonstrated by FISH analysis of paraffin-embedded tissues.

  Takeda M, Kasai T, Enomoto Y, Takano M, Morita K, Kadota E, Iizuka N, Maruyama H, Nonomura A.

  Journal of Clinical Pathology 2012 Jan; 65(1):77.

## Disease

- Disease Progression
- Disease Susceptibility
- Genetic Predisposition to Disease
- HIV Infections
- Meningeal Neoplasms
- Meningioma
- Neoplasms
- Nervous System Neoplasms
- Neurofibromatosis
- Neurofibromatosis 2
- Neuroma
- Pancreatic cancer
- Pancreatic Neoplasms
- Tobacco Use Disorder

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