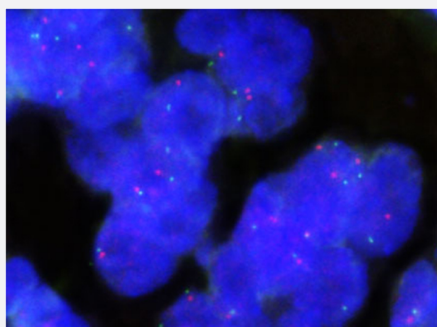


# FGFR1/CEN8q FISH Probe

Catalog # FG0049

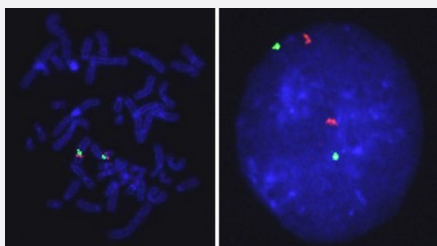
Size 200 uL, 100 uL

## Applications



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

Human breast cancer (FFPE) stained with FGFR1/CEN8q FISH Probe .  
Human breast cancer showed no FGFR1 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 Technique. ([Technology](#)).

|                         |                                                                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Probe 1                 | <b>Name:</b> FGFR1<br><b>Size:</b> Approximately 320kb<br><b>Fluorophore:</b> Texas Red<br><b>Location:</b> 8p12                                                                                                              |
| Probe 2                 | <b>Name:</b> CEN8q<br><b>Size:</b> Approximately 520kb<br><b>Fluorophore:</b> FITC<br><b>Location:</b> 8q11.21                                                                                                                |
| Probe Gap               | The gap between two probes is approximately 11,000 kb                                                                                                                                                                         |
| Origin                  | Human                                                                                                                                                                                                                         |
| Source                  | Genomic DNA                                                                                                                                                                                                                   |
| Reactivity              | Human                                                                                                                                                                                                                         |
| Form                    | Liquid                                                                                                                                                                                                                        |
| Notice                  | We <b>strongly recommend</b> the customer to use FFPE FISH PreTreatment Kit 1 (Catalog #: <a href="#">KA2375</a> or <a href="#">KA2691</a> ) 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 left image is chromosomes at metaphase, and the right image is an interphase nucleus.                                       |
| Supplied Product        | 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.                                                                                                        |

## Applications

- Fluorescent In Situ Hybridization (Cell)

[Protocol Download](#)

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

Human breast cancer (FFPE) stained with FGFR1/CEN8q FISH Probe . Human breast cancer showed no FGFR1 gene amplification.

[Protocol Download](#)

## Gene Info — FGFR1

Entrez GeneID [2260](#)

Gene Name FGFR1

Gene Alias BFGFR, CD331, CEK, FGFBR, FLG, FLJ99988, FLT2, HBGFR, KAL2, N-SAM

Gene Description fibroblast growth factor receptor 1

Omim ID [101600](#) [123150](#) [136350](#) [147950](#)

Gene Ontology [Hyperlink](#)

**Gene Summary**

The protein encoded by this gene is a member of the fibroblast growth factor receptor (FGFR) family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein consists of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member binds both acidic and basic fibroblast growth factors and is involved in limb induction. Mutations in this gene have been associated with Pfeiffer syndrome, Jackson-Weiss syndrome, Antley-Bixler syndrome, osteoglophonic dysplasia, and autosomal dominant Kallmann syndrome 2. Chromosomal aberrations involving this gene are associated with stem cell myeloproliferative disorder and stem cell leukemia lymphoma syndrome. Alternatively spliced variants which encode different protein isoforms have been described; however, not all variants have been fully characterized. [provided by RefSeq]

**Other Designations**

FMS-like tyrosine kinase 2|OTTHUMP00000190874|OTTHUMP00000190878|OTTHUMP00000190879|OTTHUMP00000190881|basic fibroblast growth factor receptor 1|fms-related tyrosine kinase 2|fms-related tyrosine kinase-2|heparin-binding growth factor receptor|hydroxyaryl

## Publication Reference

- [Prognostic factors in the myoepithelial-like spindle cell type of metaplastic breast cancer.](#)

Leo F, Bartels S, Magel L, Framke T, Busche G, Jonigk D, Christgen M, Lehmann U, Kreipe H.

Virchows Archiv 2016 Aug; 469(2):191.

Application: FISH, Human, Metaplastic breast cancer

- [Frequency of Fibroblast Growth Factor Receptor 1 gene amplification in oral tongue squamous cell carcinomas and associations with clinical features and patient outcome.](#)

Young RJ, Lim AM, Angel C, Collins M, Deb S, Corry J, Wiesenfeld D, Kleid S, Sigston E, Lyons B, Russell PA, Wright G, McArthur GA, Fox SB, Rischin D, Solomon B.

Oral Oncology 2013 Jun; 49(6):576.

Application: FISH, Human, Human tongue cancer cells

## Pathway

- [Adherens junction](#)
- [MAPK signaling pathway](#)
- [Melanoma](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)
- [Regulation of actin cytoskeleton](#)

## Disease

- [Abnormalities](#)
- [Acrocephalosyndactylia](#)
- [Alzheimer disease](#)
- [Amenorrhea](#)
- [Anodontia](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Bronchial Hyperreactivity](#)
- [Cardiovascular Diseases](#)
- [Chromosome Aberrations](#)
- [Chromosome Disorders](#)

- [Cleft Lip](#)
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