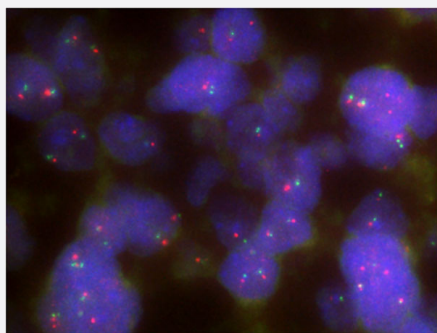


CCNE1/CEN19p FISH Probe

Catalog # FG0013

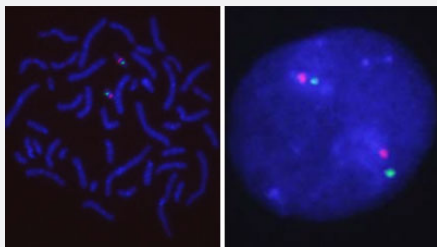
Size 200 uL, 100 uL

Applications



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

Human ovary cancer (FFPE) stained with CCNE1/CEN19p FISH Probe. Human ovary cancer showed no CCNE1 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	Name: CCNE1 Size: Approximately 150kb Fluorophore: Texas Red Location: 19q12
Probe 2	Name: CEN19p Size: Approximately 570kb Fluorophore: FITC Location: 19p13.11
Probe Gap	The gap between two probes is approximately 7,350 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 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. 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 ovary cancer (FFPE) stained with CCNE1/CEN19p FISH Probe. Human ovary cancer showed no CCNE1 gene amplification.

[Protocol Download](#)

Gene Info — CCNE1

Entrez GeneID [898](#)

Gene Name CCNE1

Gene Alias CCNE

Gene Description cyclin E1

Omim ID [123837](#)

Gene Ontology [Hyperlink](#)

Gene Summary

The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK2, whose activity is required for cell cycle G1/S transition. This protein accumulates at the G1-S phase boundary and is degraded as cells progress through S phase. Overexpression of this gene has been observed in many tumors, which results in chromosome instability, and thus may contribute to tumorigenesis. This protein was found to associate with, and be involved in, the phosphorylation of NPAT protein (nuclear protein mapped to the ATM locus), which participates in cell-cycle regulated histone gene expression and plays a critical role in promoting cell-cycle progression in the absence of pRB. Two alternatively spliced transcript variants of this gene, which encode distinct isoforms, have been described. Two additional splice variants were reported but detailed nucleotide sequence information is not yet available. [provided by RefSeq]

Other Designations cyclin Es|cyclin Et

Publication Reference

- [Genetic and immune microenvironment characterization of HER2-positive gastric cancer: Their association with response to trastuzumab-based treatment.](#)

Hyun Jung Kwon, Yujun Park, Soo Kyung Nam, Enoch Kang, Ka-Kyung Kim, Inhae Jeong, Yoonjin Kwak, Jeeseun Yoon, Tae-Yong Kim, Keun-Wook Lee, Do-Youn Oh, Seock-Ah Im, Seong-Ho Kong, Do Joong Park, Hyuk-Joon Lee, Hyung-Ho Kim, Han-Kwang Yang, Hye Seung Lee.

Cancer Medicine 2023 May; 12(9):10371.

Application: FISH, Human, Human gastric cancer

- [Multiomic analysis of homologous recombination-deficient end-stage high-grade serous ovarian cancer.](#)

Nikki L Burdett, Madelynne O Willis, Kathryn Alsop, Allison L Hunt, Ahwan Pandey, Phineas T Hamilton, Tamara Abulez, Xuan Liu, Therese Hoang, Stuart Craig, Sian Fereday, Joy Hendley, Dale W Garsed, Katy Milne, Shreena Kalaria, Ashley Marshall, Brian L Hood, Katlin N Wilson, Kelly A Conrads, Kathleen I Pishas, Sumitra Ananda, Clare L Scott, Yoland Antill, Orla McNally, Linda Mileshekin, Anne Hamilton, George Au-Yeung, Lisa Devereux, Heather Thorne, Andrea Bild, Nicholas W Bateman, G Larry Maxwell,

Nature Genetics 2023 Mar; 55(3):437.

Application: FISH, Human, Human ovarian cancer

- [MYC amplifications are common events in childhood osteosarcoma.](#)

Solange De Noon, Jannat Ijaz, Tim Hh Coorens, Fernanda Amary, Hongtao Ye, Anna Strobl, Iben Lyskjaer, Adrienne M Flanagan, Sam Behjati.

The Journal of Pathology. Clinical Research 2021 Sep; 7(5):425.

Application: FISH, Human, Human paediatric osteosarcoma

- [CCNE1 amplification and centrosome number abnormality in serous tubal intraepithelial carcinoma: further evidence supporting its role as a precursor of ovarian high-grade serous carcinoma.](#)

Kuhn E, Wang TL, Doberstein K, Bahadirli-Talbott A, Ayhan A, Sehdev AS, Drapkin R, Kurman RJ, Shih IM.

Modern Pathology 2016 Oct; 29(10):1254.

Application: FISH, Human, Serous tubal intraepithelial carcinoma

- [Characterization of the 19q12 amplification including CCNE1 and URI in different epithelial ovarian cancer subtypes.](#)

Noske A, Henricksen LA, LaFleur B, Zimmermann AK, Tubbs A, Singh S, Storz M, Fink D, Moch H.

Experimental and Molecular Pathology 2015 Feb; 98(1):47.

Application: FISH-P, Human, Epithelial ovarian carcinomas

- [Frequent CCNE1 amplification in endometrial intraepithelial carcinoma and uterine serous carcinoma.](#)

Kuhn E, Bahadirli-Talbott A, Shih IM.

Modern Pathology 2014 Jul; 27(7):1014.

Application: FISH, Human, Uterine serous carcinomas, Concurrent endometrial intraepithelial carcinomas

Pathway

- [Cell cycle](#)
- [p53 signaling pathway](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)

- [Small cell lung cancer](#)

Disease

- [Adenocarcinoma](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Disease Progression](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Neoplasm Invasiveness](#)
- [Neoplasms](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Urinary Bladder Neoplasms](#)