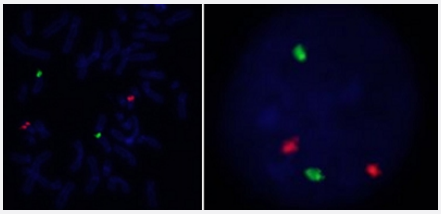
Sm Size

IGH/CCND1 Translocation FISH Probe

Catalog # FT0030 Size 200 uL, 100 uL

Applications



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 translocation using Fluorescent In Situ Hybridization T echnique. (Technology).
Probe 1	**Name:** IGH **Size:** Approximately 1550kb **Fluorophore:** FITC **Location:** 14q32
Probe 2	**Name:** CCND1 **Size:** Approximately 540kb **Fluorophore:** Texas Red **Location:** 11q13
Origin	Human

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Source	Genomic DNA
Reactivity	Human
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.
Regulatory 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.
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.
Self-Attestation	Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening

Applications

- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

Gene Info — CCND1

Entrez GeneID	595
Gene Name	CCND1
Gene Alias	BCL1, D11S287E, PRAD1, U21B31
Gene Description	cyclin D1
Omim ID	151400 168461 193300 254500
Gene Ontology	Hyperlink

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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 throughout the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradatio n patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required f or cell cycle G1/S transition. This protein has been shown to interact with tumor suppressor protei n Rb and the expression of this gene is regulated positively by Rb. Mutations, amplification and ov erexpression of this gene, which alters cell cycle progression, are observed frequently in a variety of tumors and may contribute to tumorigenesis. [provided by RefSeq
Other Designations	B-cell CLL/lymphoma 1|G1/S-specific cyclin D1

Gene Info — IGH

Entrez GeneID	3492
Gene Name	IGH
Gene Alias	IGH, IGH.1@, IGHDY1, MGC72071, MGC88774
Gene Description	immunoglobulin heavy locus
Gene Ontology	Hyperlink
Gene Summary	Immunoglobulins recognize foreign antigens and initiate immune responses such as phagocytosi s and the complement system. Each immunoglobulin molecule consists of two identical heavy cha ins and two identical light chains. This region represents the germline organization of the heavy ch ain locus. The locus includes V (variable), D (diversity), J (joining), and C (constant) segments. Du ring B cell development, a recombination event at the DNA level joins a single D segment with a J segment; this partially rearranged D-J gene is then joined to a V segment. The rearranged V-D-J i s then transcribed with the IGHM constant region; this transcript encodes a mu heavy chain. Later in development B cells generate V-D-J-Cmu-Cdelta pre-messenger RNA, which is alternatively s pliced to encode either a mu or a delta heavy chain. Mature B cells in the lymph nodes undergo s witch recombination, so that the V-D-J gene is brought in proximity to one of the IGHG, IGHA, or I GHE genes and each cell expresses either the gamma, alpha, or epsilon heavy chain. Recombin ation of many different V segments with several J segments provides a wide range of antigen rec ognition. Additional diversity is attained by junctional diversity, resulting from the random addition al of nucleotides by terminal deoxynucleotidyltransferase, and by somatic hypermutation, which oc curs during B cell maturation in the spleen and lymph nodes. Several V, D, J, and C segments are known to be incapable of encoding a protein and are considered pseudogenes. [provided by Ref Seq
Other Designations	-

Pathway

- Acute myeloid leukemia

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- Bladder cancer
- Cell cycle
- Chronic myeloid leukemia
- Colorectal cancer
- Endometrial cancer
- Focal adhesion
- Glioma
- Jak-STAT signaling pathway
- Melanoma
- Non-small cell lung cancer
- p53 signaling pathway
- Pancreatic cancer
- Pathways in cancer
- Prostate cancer
- Small cell lung cancer
- Thyroid cancer
- Wnt signaling pathway

Disease

- Adenocarcinoma
- Adenoma
- Ataxia telangiectasia
- Barrett Esophagus
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms

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- Carcinoma
- Carcinoma in Situ
- Cell Transformation
- Chromosome Aberrations
- Chromosome Aberrations
- Chronic Disease
- Colitis
- Colon cancer
- Colorectal Neoplasms
- Crohn Disease
- Disease Progression
- Disease Susceptibility
- DNA Damage
- Endometrial Neoplasms
- Esophageal Neoplasms
- Fetal Diseases
- Gastritis
- Gastroesophageal Reflux
- Genetic Predisposition to Disease
- Genomic Instability
- Glioma
- Head and Neck Neoplasms
- Helicobacter Infections
- Hematologic Diseases
- Hemophilia A
- Hepatoblastoma

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- Hodgkin Disease
- Hyperparathyroidism
- Hypopharyngeal Neoplasms
- Inflammatory Bowel Diseases
- Insulin Resistance
- Intestinal Neoplasms
- Kidney Failure
- Kidney Neoplasms
- Laryngeal Diseases
- Laryngeal Neoplasms
- Leiomyoma
- Leukemia
- Leukoplakia
- Liver Neoplasms
- Lung Neoplasms
- Lymphatic Metastasis
- Lymphoma
- Lymphoproliferative Disorders
- Meningeal Neoplasms
- Meningioma
- Mouth Neoplasms
- Nasopharyngeal Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms

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- Neuroma
- Obesity
- Occupational Diseases
- Oropharyngeal Neoplasms
- Ovarian cancer
- Ovarian Neoplasms
- Papillomavirus Infections
- Peptic Ulcer
- Pituitary Neoplasms
- Precancerous Conditions
- Prolactinoma
- Prostate cancer
- Prostatic Hyperplasia
- Prostatic Neoplasms
- Pulmonary Disease
- Rectal Neoplasms
- Recurrence
- Retinoblastoma
- Skin Neoplasms
- Stomach Neoplasms
- Translocation
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Uterine Neoplasms
- Waldenstrom Macroglobulinemia
- Werner syndrome

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