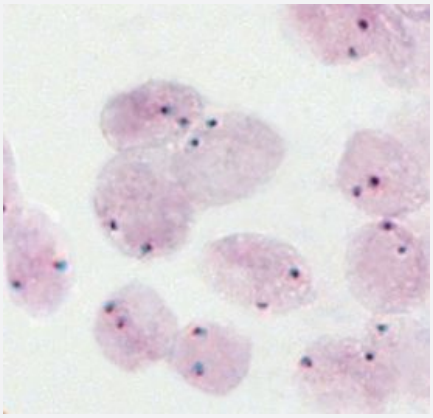
FOXO1 Split CISH Probe

Catalog # CS0009 Size 100 uL

Applications



Chromogenic *In Situ* Hybridization (Cells)

FOXO1 Split CISH Probe hybridized to normal interphase cells as indicated by two red/green fusion signals per nucleus.

Specification

Product Description	FOXO1 Split CISH Probe is designed for the qualitative detection of translocations involving the human FOXO1 gene at 13q14.11 in formalin-fixed, paraffin-embedded specimens by chromogenic *in situ* hybridization (CISH).
Reactivity	Human
Recommend Usage	The product is ready-to-use. No reconstitution, mixing, or dilution is required. Bring probe to room temperature (18-25°C) and mix briefly before use.
Supplied Product	Reagent Provided: This Probe is composed of: 1. Digoxigenin-labeled polynucleotides, which target sequences mapping in 13q14.11* (chr13:40,908,021-41,132,595) proximal to the FOXO1 breakpoint region. 2. Dinitrophenyl-labeled polynucleotides, which target sequences mapping in 13q14.11* (chr13:41,246,897-41,654,419) distal to the FOXO1 breakpoint region. 3. Formamide based hybridization buffer. *according to Human Genome Assembly GRCh37/hg19
Probe Position	

Regulatory Status	For research use only (RUO)
Storage Instruction	Store at 2-8°C in an upright position. Return to storage conditions immediately after use.
Note	The probe is intended to be used in combination with the CISH Implementation Kit 2 (Catalog #: KA5366), which provides necessary reagents for specimen pretreatment and post-hybridization processing. Interpretation of results: Using the CISH Implementation Kit 2 (Cat # KA5366), hybridization signals of Digoxigenin-labeled polynucleotides appear as dark green colored distinct dots (proximal to the FOXO1 breakpoint region), and Dinitrophenyllabeled polynucleotides appear as bright red colored distinct dots (distal to the FOXO1 breakpoint region). **Normal situation**: In interphases of normal cells or cells without a translocation involving the FOXO1 gene region, two red/green fusion signals appear. **Aberrant situation**: One FOXO1 gene region affected by a translocation is indicated by one separate green signal and one separate red signal. Overlapping signals may appear as brown signals. Genomic aberrations due to small deletions, duplications or inversions might result in inconspicuous signal patterns. Other signal patterns than those described above may be observed in some abnormal samples. These unexpected signal patterns should be further investigated.
Interpretation of Result	

Applications

- Chromogenic *In Situ* Hybridization (Cells)

  FOXO1 Split CISH Probe hybridized to normal interphase cells as indicated by two red/green fusion signals per nucleus.

Gene Info — FOXO1

Entrez GeneID	2308
Gene Name	FOXO1
Gene Alias	FKH1, FKHR, FOXO1A
Gene Description	forkhead box O1
Omim ID	136533 268220
Gene Ontology	Hyperlink

Gene Summary	This gene belongs to the forkhead family of transcription factors which are characterized by a distinct forkhead domain. The specific function of this gene has not yet been determined; however, it may play a role in myogenic growth and differentiation. Translocation of this gene with PAX3 has been associated with alveolar rhabdomyosarcoma. [provided by RefSeq
Other Designations	OTTHUMP00000018301|forkhead box O1A (rhabdomyosarcoma)|forkhead homolog in rhabdomyosarcoma|forkhead, Drosophila, homolog of, in rhabdomyosarcoma

Pathway

- Insulin signaling pathway
- Pathways in cancer
- Prostate cancer

Disease

- Atherosclerosis
- Attention Deficit Disorder with Hyperactivity
- Autistic Disorder
- Calcinosis
- Coronary Artery Disease
- Diabetes Mellitus
- Genetic Predisposition to Disease
- Glucose Intolerance
- Head and Neck Neoplasms
- NARP
- Neoplasm Recurrence
- Neoplasms
- Obesity