

ROS1 Split CISH Probe

Catalog # CS0014 Size 400 uL

Applications



Chromogenic In Situ Hybridization (FFPE Tissue)

Lung cancer tissue section with rearrangement of the ROS1 gene as indicated by isolated green signals.



Chromogenic In Situ Hybridization (Cells)

Normal interphase cells as indicated by two red/green fusion signals per nucleus.

Specification	
Product Description	ROS1 Split CISH Probe is designed for the qualitative detection of human ROS1 gene at 6q22.1 in f ormalin-fixed, paraffin-embedded specimens by chromogenic <i>in situ</i> hybridization (CISH).
Reactivity	Human
Recommend Usage	The product is ready-to-use. No reconstitution, mixing, or dilution is required. Bring probe to room te mperature (18-25°C) and mix briefly before use.

😚 Abnova	Product Information
Supplied Product	Reagent Provided:
	 Digoxigenin-labeled polynucleotides targeting sequences mapping in 6q22.1* (chr6:117,448,964- 117,627,255) proximal to the ROS1 breakpoint region Dinitrophenyl-labeled polynucleotides targeting sequences mapping in 6q22.1* (chr6:117,659,135 -117,871,701) distal to the ROS1 breakpoint region Formamide based hybridization buffer *according to Human Genome Assembly GBCh37/bg19
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 #: <u>KA5</u> <u>366</u>), which provides necessary reagents for specimen pretreatment and post-hybridization processi ng.
	Hybridization signals of digoxigenin-labeled polynucleotides appear dark green colored distinct dots haped (proximal to the ROS1 breakpoint region), and dinitrophenyl-labeled polynucleotides appear b right red distinct dot-shaped (distal to the ROS1 breakpoint region). Normal situation: In interphases of normal cells or cells without a translocation involving the ROS1 ge ne region, two red/green fusion signals appear.
	ROS1 breakpoint region or are due to unbalanced translocations affecting this chromosomal regio n. Other signal distribution may be observed in some abnormal samples which might result in a differ ent signal pattern than described above, indicating variant rearrangements. Unexpected signal patterns should be further investigated.

Interpretation of Result

Applications

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Normal interphase cells as indicated by two red/green fusion signals per nucleus.

Gene Info — ROS1	
Entrez GenelD	<u>6098</u>

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Product Information

Gene Name	ROS1
Gene Alias	MCF3, ROS, c-ros-1
Gene Description	c-ros oncogene 1, receptor tyrosine kinase
Omim ID	<u>165020</u>
Gene Ontology	Hyperlink
Gene Summary	This proto-oncogene, highly-expressed in a variety of tumor cell lines, belongs to the sevenless su bfamily of tyrosine kinase insulin receptor genes. The protein encoded by this gene is a type I inte gral membrane protein with tyrosine kinase activity. The protein may function as a growth or differ entiation factor receptor. [provided by RefSeq
Other Designations	OTTHUMP00000017814 OTTHUMP00000040389 proto-oncogene c-ros-1 protein proto-oncoge ne tyrosine-protein kinase ROS transmembrane tyrosine-specific protein kinase v-ros UR2 sarco ma virus oncogene homolog 1 v-ros avian UR2 sarcoma virus oncogene homolog 1

Disease

- <u>Atherosclerosis</u>
- Brain Ischemia
- <u>Cardiovascular Diseases</u>
- <u>Cerebral Hemorrhage</u>
- <u>Coronary Artery Disease</u>
- <u>Coronary Disease</u>
- <u>Coronary Restenosis</u>
- Genetic Predisposition to Disease
- <u>Hypertension</u>
- <u>Kidney Failure</u>
- Lung Neoplasms
- <u>Metabolic Syndrome X</u>
- Myocardial Infarction
- Pulmonary Disease

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- <u>Renal Insufficiency</u>
- <u>Stroke</u>
- Tobacco Use Disorder
- Urinary Bladder Neoplasms
- <u>Werner syndrome</u>