

SS18 Break Apart FISH Probe

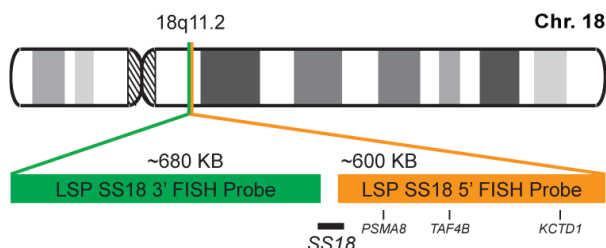
Ref: MAD-014M (10 test)

INTRODUCTION:

Abnormal expression of the SS18 gene (also known as SYT or SSXT) has been described in up to 80% of synovial sarcomas (regardless of their morphology) in which SYT-SSX1, SYT-SSX2, SYT-SSX4 translocations can appear. All of them are involved in their pathogenesis, but also in the prognosis of the neoplasm. The SYT-SSX1 one shows, in general, a less favorable prognosis. Rarely, translocation t(X-18) has been detected in pleomorphic sarcomas (previously named as malignant fibrous histiocytoma) or in fibrosarcomas.

INTENDED USE:

The SS18 Break Apart FISH probe is designed to detect rearrangements in the SS18 human gene located in the band of the chromosome 18q11.2. Aside from detecting breaks that can lead to translocation of parts of the gene, to its inversion or to its fusion with other genes, the probe can also be used to identify other aberrations of SS18 such as deletions or amplifications.



PROBE DESCRIPTION:

The 5' telomeric fragment of the SS18 Break Apart FISH probe labeled with the fluorochrome CytoOrange covers the 5' portion (beginning) of the SS18 gene and some adjacent genomic sequences.

The 3' centromeric fragment of the SS18 Break apart FISH probe labeled with CytoGreen covers the 3' part (end) and the adjacent and inferior sequences of the gene. Both probes are flanking sequences in the SS18 gene, in which variable cut-off points have been observed.

	Fluorochrome	Excitation	Emission
3' Fragment	CytoGreen	495 nm	518 nm
5' Fragment	CytoOrange	551 nm	575 nm

REFERENCE AND PRESENTATION:

MAD-014M – SS18 Break Apart FISH Probe - 10 tests in ready-to-use format.

WORKING PROTOCOL:

The probe is validated for manual in situ hybridization on paraffin-embedded tissue sections following the instructions recommended in the FISH Pretreatment Kit (ref: MAD-FISH-PTK).

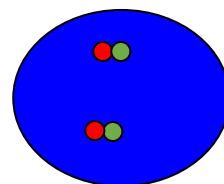
Note: It is recommended to shake the probe with the pipette before use.

The hybridization protocol for this probe is the following:

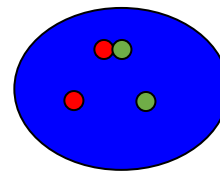
Denaturation: 80°C, 5 min

Hybridization: 43°C, 16 hours

INTERPRETATION:



Cell without translocation



Cell with translocation SS18

For the interpretation of the results of the fluorescence hybridization, it is recommended to apply the interpretation criteria in force and accepted worldwide.

WARNINGS AND PRECAUTIONS:

1. Avoid the contact of the reagents with the eyes and the mucous membranes. If the reagents come into contact with sensitive areas, wash them with plenty of water.
2. This product is harmful if swallowed.
3. Check with the local or state authorities about the recommended disposal method.
4. Avoid the microbial contamination of the reagents.

SAFETY RECOMMENDATIONS: The product is only intended for professional laboratory purposes, and it is not intended for pharmacological, home or any other type of use. The current version of the material safety data sheet of this product can be downloaded by searching its reference at www.vitro.bio or can be requested at regulatory@vitro.bio.

STORAGE: Keep refrigerated between 2 and 8°C until the expiration date of the product. **DO NOT FREEZE THE PRODUCT.**



BIBLIOGRAPHY

- 1: Kawai A, Woodruff J, Healey JH, Brennan MF, Antonescu CR, Ladanyi M. SYT-SSX gene fusion as a determinant of morphology and prognosis in synovial sarcoma. N Engl J Med. 1998 Jan 15;338(3):153-60.
- 2: Thaete C, Brett D, Monaghan P, Whitehouse S, Rennie G, Rayner E, Cooper CS, Goodwin G. Functional domains of the SYT and SYT-SSX synovial sarcoma translocation proteins and co-localization with the SNF protein BRM in the nucleus. Hum Mol Genet. 1999 Apr;8(4):585-91.
- 3: de Bruijn DR, dos Santos NR, Thijssen J, Bailemans M, Debernardi S, Linder B, Young BD, Geurts van Kessel A. The synovial sarcoma associated protein SYT interacts with the acute leukemia associated protein AF10. Oncogene. 2001 May 31;20(25):3281-9.
- 4: Morimoto Y, Ouchida M, Ozaki T, Kawai A, Ito T, Yoshida A, Inoue H, Shimizu K. Splicing isoform of SYT-SSX fusion protein accelerates transcriptional activity and cell proliferation. Cancer Lett. 2003 Sep 10;199(1):35-43.
- 5: Ito T, Ouchida M, Ito S, Jitsumori Y, Morimoto Y, Ozaki T, Kawai A, Inoue H, Shimizu K. SYT, a partner of SYT-SSX oncoprotein in synovial sarcomas, interacts with mSin3A, a component of histone deacetylase complex. Lab Invest. 2004 Nov;84(11):1484-90.

LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Expiration date
	Temperature limit
	Manufacturer
	Sufficient content for <n> assays
	Catalog number
	Lot code
	Refer to the instructions of use
	Medical product for <i>in vitro</i> diagnosis.
	Material safety data sheet
	Keep away from sunlight