

FUS Break Apart FISH Probe

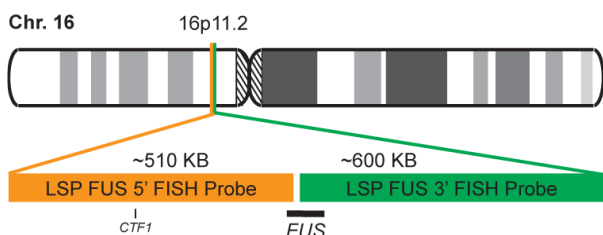
Ref: MAD-012M (10 test)

INTRODUCTION:

Rearrangements and abnormal expression of the FUS gene (also known as TLS, ALS6, ETM4, FUS1, POMP75 or HNRNPP2) have been described in the alveolar rhabdomyosarcoma, prostate carcinoma and other types of tumors such as myxoid liposarcoma, low-grade fibromyxoid sarcoma or some cases of Ewing's sarcoma.

INTENDED USE:

The FUS Break Apart FISH probe is designed to detect rearrangements in the FUS human gene located in the band of the chromosome 16p11.2. Aside from detecting breaks that can lead to the 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 FUS such as deletions or amplifications.



PROBE DESCRIPTION:

The 5' telomeric fragment of the FUS Break Apart FISH probe labeled with the fluorochrome CytoOrange covers the 5' portion (beginning) of the FUS gene and some adjacent genomic sequences. The 3' centromeric fragment of the FUS Break apart FISH probe labeled with CytoGreen covers the center and the 3' part (end) as well as the distal sequences of the gene. Both probes are flanking sequences in the FUS 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-012M – FUS 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).

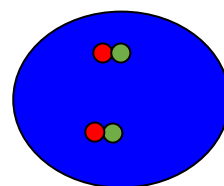
Note: It is recommended to shake the probe with the pipette before use.

The hybridization protocol for this probe is the following:

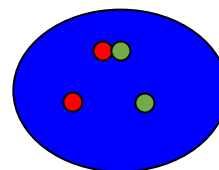
Denaturation: 80°C, 5 min

Hybridization: 43°C, 16 hours

INTERPRETATION:



Cell without translocation



Cell with translocation FUS

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: Crozat A, Aman P, Mandahl N, Ron D. Fusion of CHOP to a novel RNA-binding protein in human myxoid liposarcoma. Nature. 1993 Jun 17;363(6430):640-4.

- 2: Panagopoulos I, Lassen C, Isaksson M, Mitelman F, Mandahl N, Aman P. Characteristic sequence motifs at the breakpoints of the hybrid genes FUS/CHOP, EWS/CHOP and FUS/ERG in myxoid liposarcoma and acute myeloid leukemia. *Oncogene*. 1997 Sep;15(11):1357-62.
- 3: Panagopoulos I, Mertens F, Isaksson M, Mandahl N. A novel FUS/CHOP chimera in myxoid liposarcoma. *Biochem Biophys Res Commun*. 2000 Dec 29;279(3):838-45.
- 4: Pérez-Losada J, Sánchez-Martín M, Rodríguez-García MA, Pérez-Mancera PA, Pintado B, Flores T, Battaner E, Sánchez-García I. Liposarcoma initiated by FUS/TLS-CHOP: the FUS/TLS domain plays a critical role in the pathogenesis of liposarcoma. *Oncogene*. 2000 Dec 7;19(52):6015-22.
- 5: Panagopoulos I, Storlazzi CT, Fletcher CD, Fletcher JA, Nascimento A, Domanski HA, Wejde J, Brosjö O, Rydholm A, Isaksson M, Mandahl N, Mertens F. The chimeric FUS/CREB3L2 gene is specific for low-grade fibromyxoid sarcoma. *Genes Chromosomes Cancer*. 2004 Jul;40(3):218-28.

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