MALT1 Break Apart FISH Probe
Ref: MAD-011M (10 test)

INTRODUCTION:

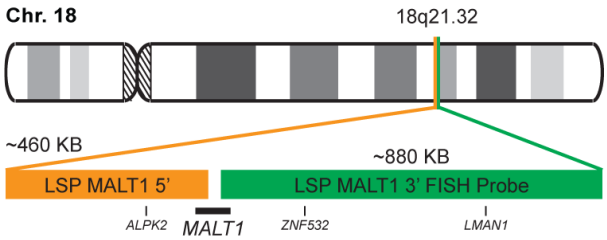
Rearrangements and abnormal expression of the MALT1 gene (also known as MLT, MLT1 or IMD12), in B-cell lymphomas and other malignant diseases have been described.

There are two types of translocations that involve the MALT1 gene described in lymphomas: t(11;18)(q21;q21.32) that involves BIRC3/MALT1 (the most frequent) and t(14;18)(q32;q21.32) of the IGH/MALT1 genes.

Up to 33% of the mucosa-associated lymphoid tissue B-cell lymphoma (MALT-type B-cell lymphoma) present translocation, whereas the vast majority of primary MALT lymphomas in lymph node or spleen are negative.

INTENDED USE:

The MALT1 Break Apart FISH probe is designed to detect rearrangements in the MALT1 human gene located in the band of the chromosome 18q21.32. 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 MALT1 such as deletions or amplifications.



PROBE DESCRIPTION:

The 5' centromeric fragment of the MALT1 Break Apart FISH probe labeled with the fluorochrome CytoOrange covers the 5' portion (beginning) of the MALT1 gene and some adjacent genomic sequences. The 3' telomeric fragment of the MALT1 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 of the MALT1 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-011M – **MALT1 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).

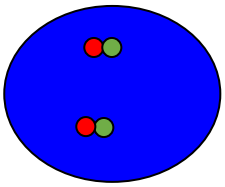
Note: *It is recommended to shake the probe with the pipette before use.*

The hybridization protocol for this probe is the following:

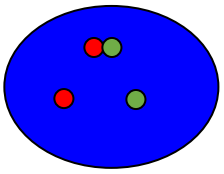
Denaturation: 80°C, 5 min

Hybridization: 43°C, 16 hours

INTERPRETATION:

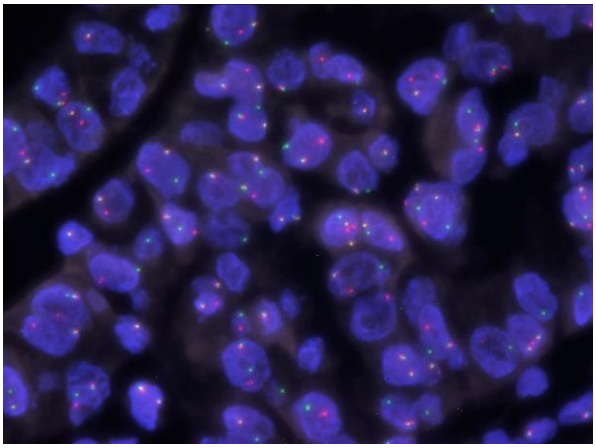


Cell without translocation MALT1



Cell with positive translocation

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



Gastric MALT lymphoma with positive MALT gene translocation

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.

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CE IVD

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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 8ºC until the expiration date of the product. **DO NOT FREEZE THE PRODUCT.**

BIBLIOGRAPHY

1: Dierlamm J, Baens M, Wlodarska I, Stefanova-Ouzounova M, Hernandez JM, Hossfeld DK, De Wolf-Peeters C, Hagemeijer A, Van den Berghe H, Marynen P. The apoptosis inhibitor gene API2 and a novel 18q gene, MLT, are recurrently rearranged in the t (11;18)(q21;q21) associated with mucosa-associated lymphoid tissue lymphomas. Blood. 1999 Jun 1; 93(11):3601-9.

2: Maes B, Baens M, Marynen P, De Wolf-Peeters C. The product of the t(11;18), an API2-MLT fusion, is an almost exclusive finding in marginal zone cell lymphoma of extranodal MALT-type. Ann Oncol. 2000 May;11(5):521-6.

3: Dierlamm J, Baens M, Stefanova-Ouzounova M, Hinz K, Wlodarska I, Maes B, Steyls A, Driessen A, Verhoef G, Gaulard P, Hagemeijer A, Hossfeld DK, De Wolf-Peeters C, Marynen P. Detection of t(11;18)(q21;q21) by interphase fluorescence in situ hybridization using API2 and MLT specific probes. Blood. 2000 Sep 15;96 (6):2215-8.

4: Baens M, Steyls A, Dierlamm J, De Wolf-Peeters C, Marynen P. Structure of the MLT gene and molecular characterization of the genomic breakpoint junctions in the t(11;18)(q21;q21) of marginal zone B-cell lymphomas of MALT type. Genes Chromosomes Cancer. 2000 Dec;29(4):281-91.

5: Uren AG, O'Rourke K, Aravind LA, Pisabarro MT, Seshagiri S, Koonin EV, Dixit VM. Identification of paracaspases and metacaspases: two ancient families of caspase-like proteins, one of which plays a key role in MALT lymphoma. Mol Cell. 2000 Oct;6(4):961-7.

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 *in vitro* diagnosis.
	Material safety data sheet
	Keep away from sunlight