XL IRF4 BA

Break Apart Probe

Order No.:
D-6040-100-OG

Description

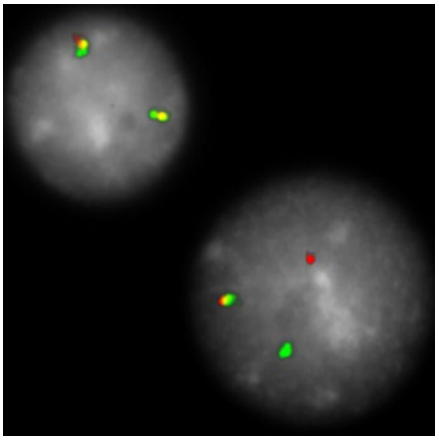
The XL IRF4 BA probe is designed as a break apart probe. The orange labeled probe hybridizes distal to the breakpoint in the IRF4 gene region at 6p25, the green labeled probe hybridizes proximal to the breakpoint. This probe is intended for methanol/acetic-acid fixed cells and tissue sections.

Clinical Details

The updated (2016) revision of the World Health Organization (WHO) classification of tumors of lymphoid neoplasms considers the large B-cell lymphoma with IRF4 rearrangement as a new provisional entity. Head and neck regions including the Waldeyer ring are particularly affected. Chromosomal translocations involving the IRF4 gene and the immunoglobulin loci IGH, IGL and IGK (IG) result in dysregulation of IRF4 expression, other translocation partners may occur. Since t(6;14)(p25;q32) is cytogenetically cryptic, FISH is a valuable tool in detecting this recurrent aberration. IG/IRF4 positive lymphomas normally lack t(14;18), observed in about 85% of adult patients with follicular lymphoma, and are commonly associated with young age and a good course. IRF4 rearrangements have also been identified in peripheral T-cell lymphomas (PTCL). PTCL are defined as a diverse group of aggressive lymphomas of mature-stage T-cells accounting for about 10% of Non-Hodgkin lymphomas. Recent data suggests, that IRF4 translocations detected by FISH have a predictive value for primary cutaneous CD30(+) anaplastic large cell lymphoma.

Literature:

- Feldman et al (2009) Leukemia 23:574-580
- Salaverria et al (2011) Blood 7:139-147
- Kiran et al (2013) Leukemia Research 37:396-400



XL IRF4 BA hybridized to lymphocytes, one aberrant and one normal cell are shown. The expected normal signal pattern is two green-orange colocalization/fusion signals representing the two normal IRF4 loci. Translocations affecting the IRF4 locus are separating one green-orange colocalization/fusion signal resulting in one separated green, one orange and one green-orange colocalization/fusion signal as shown above.

Clinical Applications:

- NHL

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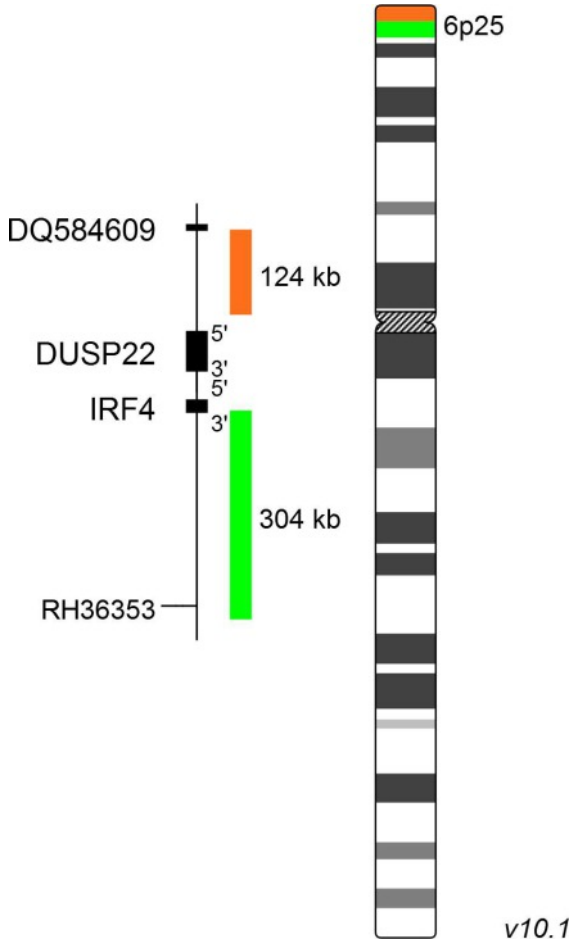

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Further Information or Request Assistance

Please do not hesitate to contact us if you have any questions or if you need technical support.

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