

MET (7q31) Orange + Copy Control 7 Green

FISH Probe
902-7028-102517

BIOCARE
M E D I C A L

Catalog Number: PFR7028A
Description: MET (7q31) Orange + Copy Control 7 Green FISH Probe

Dilution: Ready-to-use
Volume: 100 µL

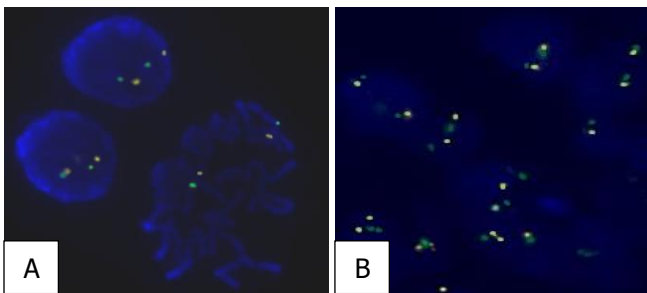
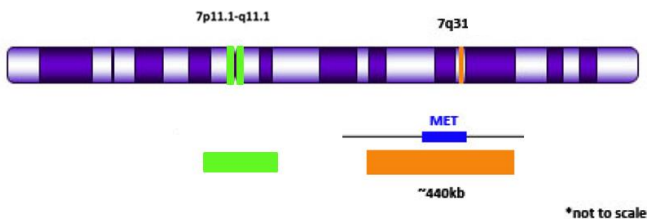
Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

The MET (7q31) Orange + Copy Control 7 Green FISH probe is design to detect the MET gene region located on 7q31. MET (7q31) is a proto-oncogene that encodes a transmembrane tyrosine kinase receptor, and regulates cellular pathways responsible for cell proliferation¹. Aberrant activation of MET (7q31) signaling occurs in a subset of cancers such as non-small-cell lung cancer and gastric cancer^{1,2}. MET (7q31) gene amplification in cancer has been associated with poor prognosis and has been detected in malignant tumors using fluorescence in situ hybridization^{1,3}.

Principle of Procedure:

The MET (7q31) Orange probe is labeled in orange and hybridizes to ~440kb of the MET(7q31) region, a centromeric copy control 7 probe labeled in green is also included. When the probe is hybridized to a normal cell, two orange and two green signals may be observed.



(A) MET (7q31) Orange + Copy Control 7 Green FISH probe hybridized on normal blood sample. Interphase and metaphase cellular state are shown. (B) MET (7q31) Orange + Copy Control 7 Green FISH probe hybridized on prostate FFPE sample.

Species Reactivity: Human
Known Application:

Fluorescence In-situ Hybridization (FISH) on formalin-fixed paraffin-embedded (FFPE) tissues.

Supplied As: Probe in hybridization buffer.

Storage and Stability:

Store probe at -20°C and away from light. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date.

Technical Note:

Biocare Medical dual color FISH probes are optimized to provide the best signal performance using optical filters that can accommodate the excitation/emission wavelengths specified below. Using filters outside these spectral specifications may produce sub-optimal results.

Fluorophore	Excitation (nm)	Emission (nm)
GREEN	498	522
ORANGE	537	556

Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

Precautions:

1. This product contains formamide and fluorescent dyes that may be hazardous to your health. The SDS is available upon request and is located at <http://biocare.net>.
2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water⁴.

Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

References:

1. Cappuzzo, F., A. Marchetti, M. Skokan, E. Rossi, S. Gajapathy, L. Felicioni, M. Del Gramastro, M. G. Sciarrotta, F. Buttitta, M. Incarbone, L. Toschi, G. Finocchiaro, A. Destro, L. Terracciano, M. Roncalli, M. Alloisio, A. Santoro, and M. Varella-Garcia. "Increased MET Gene Copy Number Negatively Affects Survival of Surgically Resected Non-Small-Cell Lung Cancer Patients." *Journal of Clinical Oncology* (2009): 1667-674.
2. Peng, Zhi, Yan Zhu, Qianqian Wang, Jing Gao, Yilin Li, Yanyan Li, Sai Ge, Lin Shen, and Valli De Re. "Prognostic Significance of MET Amplification and Expression in Gastric Cancer: A Systematic Review with Meta-Analysis." *PLoS ONE* (2014): E84502.
3. Kawakami, Hisato, Isamu Okamoto, Wataru Okamoto, Junko Tanizaki, Kazuhiko Nakagawa, and Kazuto Nishio. "Targeting MET Amplification as a New Oncogenic Driver." *Cancers* 6 (2014): 1540-552.
4. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections;

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