EMPIRE GENOMICS

BREAK APART PROBES

FOR DETECTING GENE TRANSLOCATIONS

Translocations make up nearly 75% of genetic abnormalities exhibited in cancer cells.[1] Certain cancers can even be characterized by shuffling of a single hallmark gene.[2] For example, NTRK3 is rearranged in over 90% of infantile fibrosarcomas, and ERG transocations are found almost exclusively in prostate tumors.[3,4] Displaced genes are subject to different regulatory neighbors, and may fuse with new partners to create novel fusion genes, both of which can result in abnormal gene expression, and, consequently, lead to cancer.[2]

Empire Genomics' break apart FISH probes can quickly and reliably map such rearrangements by hybridizing to the regions on either side of a target gene. A normal sample will display a unified signal, but if the gene has moved from its typical location, the two colors will split. Listed below are some of our most popular break apart probes. To view our complete break apart catalog, please visit our website. Don't see the probe you're looking for? Contact us for a custom order - we can design a probe to hybridize to virtually any human gene!

POPULAR PROBES	LOCATION	DYE COLOR	SKU
ABL1	9q34.1		ABL1BA-20-GROR
ALK	12p23.2-23.1		ALKBA-20-ORGR
BCL2	18q21.3		BCL2BA-20-ORGR
BCL6	3q27		BCL6BA-20-GROR
BRAF	7q34		BRAFBA-20-ORGR
ERG	21q22.2		ERGBA-20-GROR
FGFR2	10q26.1		FGFR2BA-20-ORGR
HMGA2	12q14.3		HMGA2BA-20-ORGR
IGH	14q32.33		IGHBA-20-ORGR
JAK2	9p24.1		JAK2BA-20-ORGR
MYB	6q23.3		MYBBA-20-ORGR
MYC	8q24.21		MYCBA-20-ORGR
NTRK1	1q23.1		NTRK1BA-20-ORGR
NTRK2	9q21.33		NTRK2BA-20-ORGR
NTRK3	15q25.3		NTRK3BA-20-ORGR
PLAG1	8q12.1		PLAG1BA-20-GROR
ROS1	6q22.1		ROS1BA-20-GROR
TFEB	6p21.1		TFEBBA-20-ORGR
USP6	17p13.2		USP6BA-20-ORGR

To View Our Break Apart FISH Probe Catalog

visit www.empiregenomics.com/break-apart

1.FutrealPA,etal.Naturerevcanc(2004)4.3:177.
2.EdwardsPA.JourPathol(2010)220.2:244-254.
3.CoccoE,etal.(2018)NatureReviewsClinicalOncology15.12:731-747.
4.SchebleVJ,etal.(2010)ModernPathology23.8:1061.