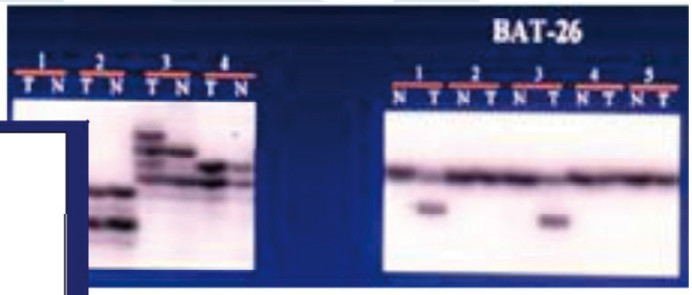
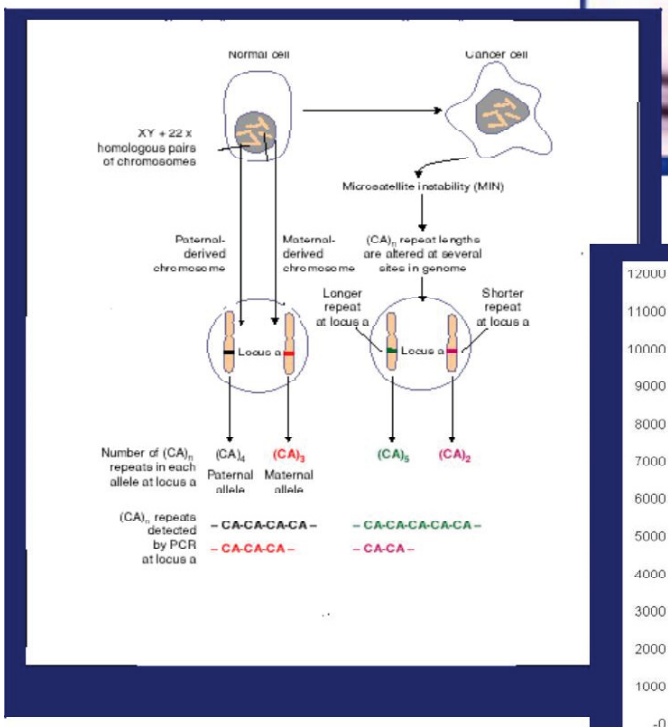
CYTOGEN

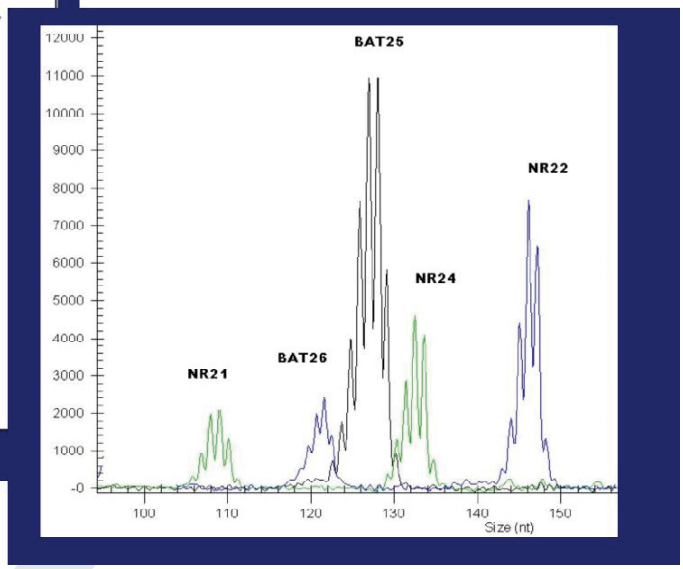
Produkte für Medizin und Forschung GmbH

HNPCC Kit 1 - FL

Molecular analysis of microsatellites instability in Hereditary nonpolyposis colonrectal cancer syndrome (HNPCC) and sporadic stomach and colonrectal cancer by PCR pentaplex







CE IVD

EXPERTEAM
l'esperienza in biologia molecolare

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Most of the tumors from the hereditary nonpolyposis colorectal cancer **(HNPCC)** syndrome and around 10-15% of sporadic colon and gastric cancer are linked to **microsatellites instability** (MSI). The microsatellite instability phenotype, characterized by widespread somatic alterations in the length of nucleotide repeat sequences, is a marker of an underlying mismatch repair **(MMR)** defect that fails to recognize errors introduced during the replication of DNA. This errors are especially prone to occur at repetitive DNA sequences.

Gastrich and colon tumors associated to MSI have distinctive molecular and clinicopathologic profiles and are often associated with favorable prognosis.

MSI is a valuable **diagnostic marker** for the identification of HNPCC cases and a molecular **predictive marker** for the identification of colon cancer patients who benefit from chemotherapy.

HNPCC kit 1- FL performs MSI analysis by a single multiplex PCR (simultaneous amplification of more loci) of **5** repeated DNA sequences **(microsatellites)**. The use of such markers, which are quasimonomorphic mononucleotide repeats, may obviate the need for normal matching DNA for the tumors being tested.

Containing of the kit

Label	Contents
HNPCC MASTER MIX	MIX for amplification of microsatellites BAT-25, BAT-26, NR21, NR22, NR24
ExperTaq polymerase	Taq DNA polimerase

How does the kit work?

"HNPCC kit 1 – FL" allows microsatellites instability analysis in tumor-associated HNPCC and in sporadic colon and stomach cancer by a **pentaplex PCR** of 5 microsatellites. DNA fragments, marked with different fluorescent dyes, are separated by capillary electrophoresis by automatic sequencer.
Abnormal amplicon length and consequent microsatellites instability, are easily detected just by tumor tissue electrophoretic tracing. The use of such markers, which are quasimonomorphic, does not require DNA analysis of germinal line. This analysis, however, is suggested as confirmation of MSI.
The fluorescent pentaplex PCR of mononucleotide repeats used in the kit, consents a rapid, accurate and high-throughput screening of MSI status. It allows screening of large sample numbers with high specificity and sensibility, and clear interpretation of data.

Starting samples: tumoral tissue (FFPE), germinal line DNA. **DNA isolation method:** QIAamp DNA mini kit, (Qiagen). **DNA Sequencer:** CEQ 8000/8800 Genetic Analysis System (Beckman Coulter); 310, 3100, 3130, 3730, 3500 Genetic Analyzers (Applied Biosytems).

Product	Unit	Cat.-No.
HNPCC Kit 1 - FL	40 tests	MS.01FL

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