

HER2/CEN 17 Dual CISH detection kit (Zytovision tecnología)

Kit HER2/CEN 17 Dual CISH (tecnología Zytovision)

Background

CISH HER2/CEN 17 Dual detection kit is designed for the simultaneous detection of the HER2 gene and the centromere of the chromosome 17 in tissue or cell samples fixed in buffered formalin and embedded in paraffin. The HER2 gene (also known as ErbB2 and NEU) is located in chromosomal region 17q12 and encodes the receptor of the protein kinase erbB-2, also known as cell growth factor p185.

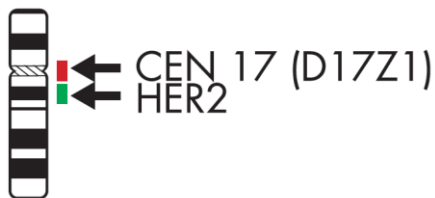
The HER2 proto-oncogene amplification is observed in approximately 20% of breast cancer and has been correlated with poor prognosis. Its determination has been established as mandatory for the treatment of patients with Herceptin, the humanized monoclonal antibody capable of blocking this receptor and for which similar results have been obtained in other malignancies such as ovarian, stomach and salivary gland carcinomas.

Advantages of CISH (chromogenic in situ hybridization) on the FISH (fluorescence in situ hybridization) in determining HER2/neu

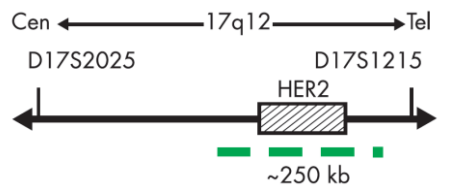
- Simultaneous evaluation of morphology and of the chromogenic signals
- Quick and easy to interpret results by direct visualization using a bright field microscope without a computer support
- The signals are permanent and the stained slides can be stored at room temperature
- Does not imply an economic investment in a fluorescence microscope

Probe design

CISH HER2/CEN17 Dual System detection kit is a combination of a digoxigenin-labeled probe specific for the 17q12 region of the HER2 gene and a dinitrophenyl-labeled control probe specific for the centromeric region of the alpha satellite of the chromosome 17 (D17Z1).



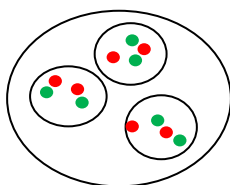
Chromosome 17 and the site of hybridization



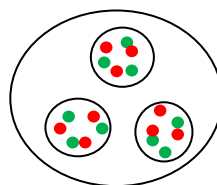
HER2 probe representation

Interpretation en comparative results

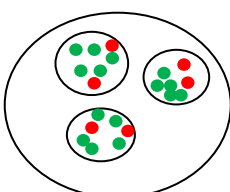
The HER2/CEN CISH 17 Dual detection kit provides in the normal nuclei of the cells in interface two green signals corresponding to the HER2 gene and two red signals corresponding to chromosome 17 centromere (CEN17). In cells with amplification of the HER2 gene locus, multiple individual signals are observed in green or organized "clusters".



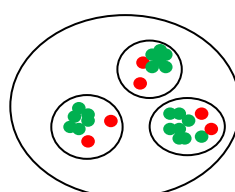
Células normales




Aneuploidía del cromosoma



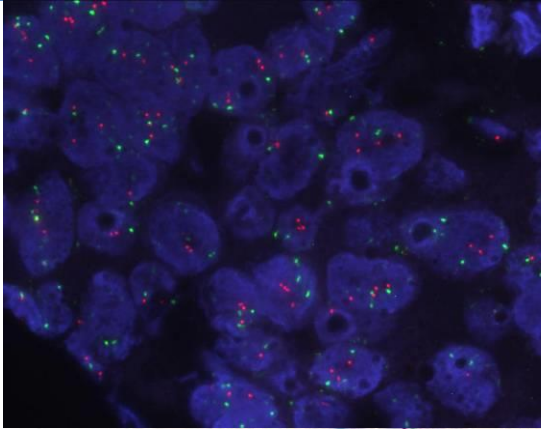
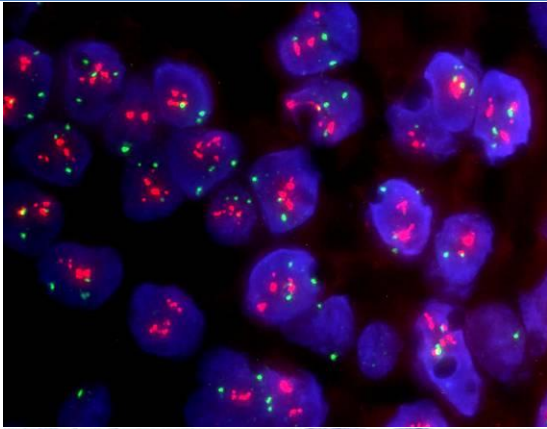
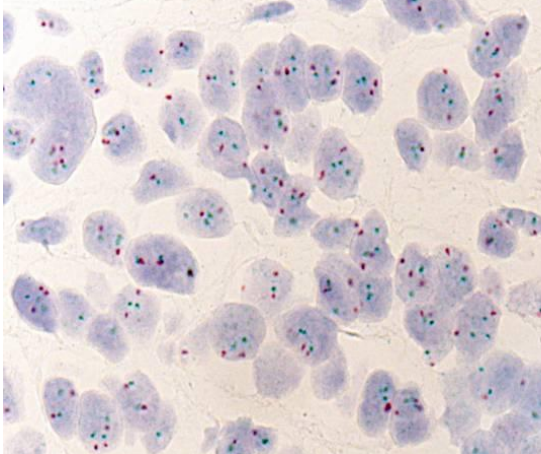
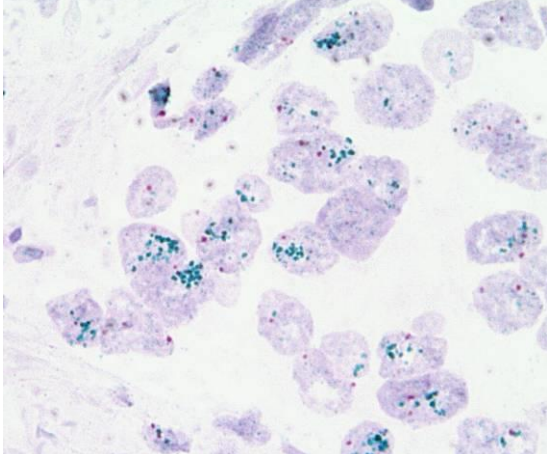
Baja amplificación del gen HER2



Elevada amplificación del gen

 17 (CEN17)

 HER2 gene

Interpretation	Breast carcinoma without HER2 gene amplification	Breast carcinoma with HER2 gene amplification
FISH		
HER2/CEN 17 Dual CISH		

Note: the evaluation of the results should follow internationally accepted guidelines for the assessment of HER2 FISH

Referencias:

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