

# HER2 ISH DP Copy No (Breast)

Organization	Field Name	ID	Required
KCR	HER2 ISH Dual Probe Copy Number	34047	yes
SEER	HER2 ISH DP Copy No	3851	yes

**Note 1** This SSDI is no longer required by any of the standard setters starting with 2021 diagnoses.

- For cases diagnosed 2021+, this SSDI may be left blank

**Note 2** Physician statement of HER2 in situ hybridization (ISH) Dual Probe Copy Number can be used to code this data item.

**Note 3** A dual probe test will report average number or mean signals per cell for both HER2 and CEP17, the latter used as a control. Record the HER2 average number or mean signals per cells in this data item. The average number or mean signals per cells is also called the copy number.

- \*Example\***

SISH RESULTS FINAL HER2 IN SITU HYBRIDIZATION INTERPRETATION EQUIVOCAL, INDETERMINATE. HER2 gene copy between 4 & 6 with HER2 /CEP17 ratio <2.

HER2/CEP17 RATIO  $4.26 / 3.13 = 1.36$

HER-2/neu SILVER IN SITU HYBRIDIZATION (SISH)  
 HER-2neu gene (Inform HER2 DNA probe)  
 Number of tumor cell nuclei counted 120  
 Number of Her-2/neu gene copies 511  
 Mean HER-2/neu gene copy number 4.26

CEP-17 SILVER IN SITU HYBRIDIZATION (SISH)  
 CEP-17 (Inform Chromosome 17 probe)  
 Number of cell nuclei counted 60  
 Number of CEP-17 gene copies 188  
 Mean CEP-17 gene copies/nucl 3.13

Code Dual Probe HER2 Copy Number 4.2  
 (Note This is calculated by dividing 511 by 120)

**Note 4** Registrars are not to calculate the copy number.

**Note 5** Following ASCO-CAP guidelines, a 2+ (equivocal) finding by **immunohistochemistry (IHC)** should result in additional testing with ISH to determine gene copy number.

**Note 6** Any type of ISH test (e.g., FISH, CISH, SISH) can be used to code this data item. Code this data item using the same report used to record HER2 ISH Summary (NAACCR Data Item #3854).

**Note 7** A HER2 ISH test may be called "ERBB2." ERBB2 is the standard symbol for the gene 'erb-b2 receptor tyrosine kinase 2.' An IHC test identifies the protein expressed by the gene, and an ISH test identifies the gene itself.

**Note 8** If a HER2 ISH single probe copy number test is done, and the results are between 4 and 6 (equivocal), dual probe tests are recommended.

**Note 9** If the test results are presented to the hundredth decimal, ignore the hundredth decimal. Do NOT round.

- \*Example\***  
 Reported as 4.99, code as 4.9

Code	Description
0.0-99.9	Reported HER2 copy number of 0.0-99.9
XX.1	Reported HER2 copy number of 100 or greater
XX.7	Test ordered, results not in chart
XX.8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code XX.8 will result in an edit error.)
XX.9	Not documented in medical record Cannot be determined (indeterminate) Dual probe test not done; only single probe test performed HER2 ISH Dual Probe Copy Number not assessed or unknown if assessed
<BLANK>	N/A-Diagnosis year is after 2020