

TEST: Chromosome analysis, chorionic villi

DESCRIPTION: In situ culture of chorionic villi to produce metaphase cells for Giemsa-banded chromosome analysis. Cytogenetic examination includes detailed analysis of 5 cells and 20 cells total counted from approximately 15 colonies in 2 or more different cultures. A karyogram is prepared on at least 3 cells. Often fluorescence in situ hybridization (FISH) analysis of interphase chorionic villus cells is also performed to rapidly exclude the common autosomal trisomies and sex chromosome numerical abnormalities.

INDICATIONS:

- abnormal early fetal ultrasound findings
- advanced maternal age
- previous child with a chromosome abnormality
- familial chromosome rearrangement
- biochemical or molecular diagnosis of a genetic disorder

Cultured chorionic villus cells can also be used for other tests such as biochemical or molecular analyses as indicated by the clinical situation.

SPECIMEN REQUIREMENTS: 15-25 mg of chorionic villi. Use a stereo microscope and sterile forceps to remove any blood clots and/or decidua. (If the equipment and/or technical experience for cleaning villi are not available this can be performed at CompGene.) Transfer the chorionic villi to a sterile polypropylene screw-top tube and fill with sterile tissue culture transport medium. Tissue culture medium and polypropylene tubes can be supplied by CompGene. Please call 414 -393 -1000 to obtain tubes and/or medium. Label tube with patient's name and medical record number. Tissue may be refrigerated. **Specimen must not be frozen.** Send to CompGene with a Requisition for Chromosome Analysis form as soon as possible after tissue collection.

REFERENCE VALUE: 46,XX or 46,XY

TURN AROUND TIME: 5-10 days for metaphase chromosome analysis  
1 -2 days for fluorescence in situ hybridization (FISH) analysis

CPT CODES: 88235 - tissue culture for chorionic villi  
88267 - chromosome analysis, chorionic villi  
88291 - cytogenetic interpretation and report  
  
88271 - fluorescence in situ hybridization probes  
88275 - fluorescence in situ hybridization 100-300 cells