

	<ul style="list-style-type: none"> <li>Under what circumstances might your laboratory use a lower band resolution?</li> </ul>
	<ul style="list-style-type: none"> <li>Examine the karyograms from cases. Determine whether the band level is sufficient to provide the rendered interpretation.</li> </ul>

**CYG.42200 Band Level - Constitutional Cases****Phase II****The band level for constitutional cases is at least at the 400-band level of resolution.**

*NOTE: Constitutional cases must be banded at least at the 400-band level (International System for Human Cytogenetic Nomenclature - ISCN).*

**Evidence of Compliance:**

- ✓ Karyograms with appropriate band resolution

**REFERENCES**

- 1) American College of Medical Genetics, Standards and Guidelines for Clinical Genetics Laboratories, 2021 edition.
- 2) McGowan-Jordan J, Hastings R, Moore S, eds; International Standing Committee on Human Cytogenomic Nomenclature. *ISCN: An International System for Human Cytogenomic Nomenclature* (2020). Basel, New York: Karger; 2020.
- 3) Department of Health and Human Services, Centers for Medicare and Medicaid Services, Clinical laboratory improvement amendments of 1988; final rule. Fed Register. 2003(Jan 24): [42CFR493.1276(b)(2)]

**CYG.42300 Band Level - Blood Samples****Phase II****At least the 550-band level of resolution is achieved in appropriate blood samples.**

*NOTE: The 550-band level is the minimum goal of all such studies, particularly in cases of developmental delay/intellectual disability, dysmorphology and birth defects.*

**Evidence of Compliance:**

- ✓ Karyograms with appropriate band resolution

**REFERENCES**

- 1) American College of Medical Genetics, Standards and Guidelines for Clinical Genetics Laboratories, 2021 edition.
- 2) McGowan-Jordan J, Hastings R, Moore S, eds; International Standing Committee on Human Cytogenomic Nomenclature. *ISCN: An International System for Human Cytogenomic Nomenclature* (2020). Basel, New York: Karger; 2020.

**CYG.42400 Banding and Resolution****Phase II****The quality of banding and resolution is sufficient to render the reported interpretation.****REFERENCES**

- 1) Department of Health and Human Services, Centers for Medicare and Medicaid Services, Clinical laboratory improvement amendments of 1988; final rule. Fed Register. 2003(Jan 24): [42CFR493.1276(b)(3)]

## IN SITU HYBRIDIZATION

*The use of the term *in situ hybridization (ISH)* in this section applies to all ISH methods, including fluorescence (FISH), chromogenic (CISH), silver (SISH), and brightfield (BISH) *in situ* hybridization.*

*Please refer to the Definition of Terms section of the All Common (COM) Checklist for definitions of analytical validation and analytical verification.*