

# **Full-Length gene enrichment by using an optimized RNA isolation protocol in *Bixa orellana* recalcitrant tissues.**

Rodríguez-Avila NL, Narváez-Zapata JA, Aguilar-Espinosa ML, Rivera-Madrid R.

Centro de Investigación Científica de Yucatán, 97200, Merida, Yucatan, Mexico. renata@cicy.mx

## **Abstract**

A reliable protocol is described for isolation of large full-length cDNA from *Bixa orellana* mature tissues containing large quantities of pigments, phenols, and polysaccharides. This protocol involves the optimization of a commercial RNA extraction protocol in combination with a long distance reverse transcript PCR protocol. The principal advantages of this protocol are its high RNA yield and quality. The resulting RNA is suitable for RNA expression evaluation and production of large, full-length cDNA. This is the first time RNA has been isolated from all mature tissues in the tropical perennial plant *B. orellana* and has been proved viable for downstream applications, especially important for molecular biology studies on this economically important pigment-producing plant.