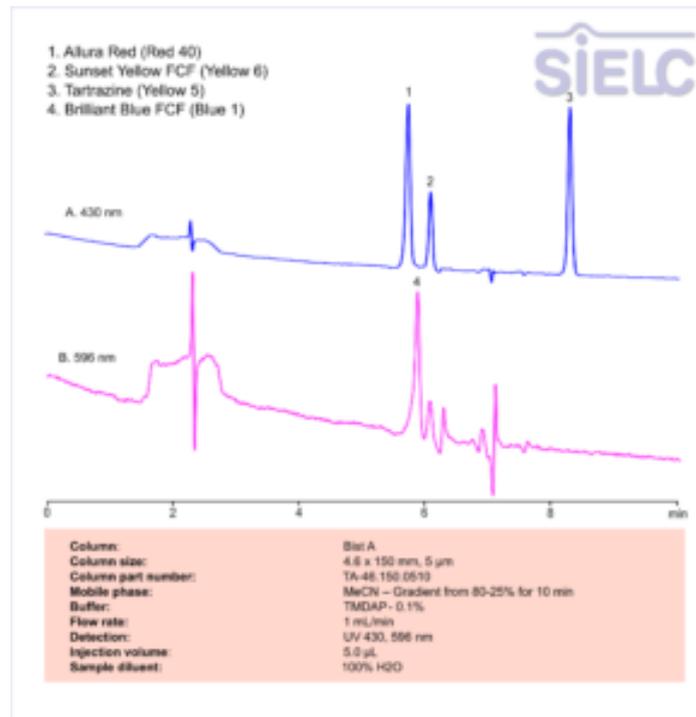


HPLC Method for Analysis of Allura Red, Sunset Yellow FCF, Tartrazine, and Brilliant Blue FCF in Nerds Gummy Clusters Rainbow on BIST A Column



Allura Red AC, also known as FD&C Red No. 40, is a red azo dye that is the most commonly used red dye in the United States. It is used anywhere from tattoos to children's medications to drinks and food. If used in food it also has the E number E129. Allura red is sold as a dark red sodium salt, but when dissolved in water, the solution appears orange-red. Sunset Yellow FCF, also known as Orange Yellow S, C.I. 15985, or Yellow 6, is a petroleum-derived orange azo dye. When in powder form, it is Reddish-orange, but when dissolved in water, the liquid becomes bright yellow. The dye is banned or restricted in Norway, Finland and Sweden. Brilliant Blue FCF, also known as Blue 1, is a compound classified as a triarylmethane dye. Dry, it has the appearance of a light-blue powder, but when dissolved in water, turns deeper blue. Tartrazine is a yellow food coloring agent. It's a polar trisodium salt, and like most very polar compounds it exhibits very weak to no interaction with traditional reverse phase columns. Additionally, multi-charged compounds such as Tartrazine tend to have a broad peak shape using single mode ion-exchange columns and often require large quantities of a buffer in the mobile phase due to very strong ionic interactions. By using a mixed-mode column, specifically designed in mind for multiple charges, BIST A can retain and separate dyes with perfect peak shape using a mobile phase of Acetonitrile (MeCN) and water with N,N,N',N'-Tetramethyl-1,3-propanediamine (TMDAP). UV detection at 430 and 596 nm.

High Performance Liquid Chromatography (HPLC) Method for Analysis of Allura Red (Red #40) , Sunset Yellow (Yellow 6) , Tartrazine (FD&C Yellow 5) , Brilliant Blue FCF (Blue 1) on BIST A Column.

Method Parameters

Column	BIST A, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeOH – Gradient from 80-25% for 10 minutes
Buffer	TMDAP – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 430, 596 nm

Quelle: <https://sielc.com/hplc-method-for-analysis-of-allura-red-sunset-yellow-fcf-tartrazine-and-brilliant-blue-fcf-in-nerds-gummy-clusters-rainbow-on-bist-a-column>